

# MANUFACTURERS' RECORD

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## Manufacturers' Record.

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BALTIMORE, MARCH 25, 1909.

### PERTINACITY PAYS.

Faint heart in advertising never wins fair trade. The man who ceases to advertise because he gets no results from one insertion, or even from half a dozen insertions, loses sight of the main point in advertising a continuing business—the opportunity it gives for keeping one's business to the front. It may be that at the moment customers are not prepared to come forward. That does not mean that they will never be ready. When they are ready they will seek the advertiser who has had faith in the future, but will forget the one who has ceased to advertise. These truisms are suggested by a letter from the Forrest Lumber Co. of Hattiesburg, Miss., which, referring to its advertisement in the MANUFACTURERS' RECORD, says:

We are glad to state that we have received direct results from this insertion. In the way of inquiries. It is also pleasing to know that the subscribers of the MANUFACTURERS' RECORD do read the advertisements, and when they are in the market write us, and some state that they saw our ad. in your paper. While we have been unable to secure but little business from these inquiries, we feel justified in continuing our ad. in your journal, believing it will eventually pay us.

If every customer of advertisers in the MANUFACTURERS' RECORD would tell them that he has been attracted by the advertisement in the MANUFACTURERS' RECORD, advertisers would be more convinced than ever that advertising in the MANUFACTURERS' RECORD pays, especially if they keep persistently at it.

### THE PRIMAL TARIFF TASK OF CONGRESS.

Yielding not to the temptations to diversion from the main point inherent in the Payne Tariff Bill or to those likely to be interjected elsewhere into Congress, the members of the National House of Representatives should devote the next month at least to bringing into logical balance for the benefit of the whole country the provisions of that measure. They should first of all acquaint themselves with the general principle, if there was any such, dominating the framing of the new tariff bill and with the intent and the possible effects of each provision standing by itself or influenced by other provisions. Careful reading of the full text of the bill leads to a conviction that the possibilities in it for far-reaching ills were not fully comprehended by the framers of it.

The minimum and maximum device, affecting more or less every schedule of importance, is one that even members of Congress may not at this moment understand. Consequently foreign nations may hardly be expected to understand it with less difficulty, and should it become law in its present form it would be likely to negative one purpose of the bill—to provide revenue—and it is questionable whether another purpose, to encourage the industries of the United States, will be subserved. This device, contrary in essence to the spirit that should dominate in commerce, in that it substitutes a threat for an inducement, seems to be so inextricably confused with questions of countervailing, retaliation and drawbacks here and of preferentials and export bounties or export taxes in other countries that it is hard to imagine how an ultimate working basis for commercial intercourse may be reached under it.

Its operation, as far as it relates to such "raw materials" as iron ore, coal and other minerals, textiles, lumber, wood pulp, and other forest products, etc., coming from such countries as Canada, Cuba or Mexico, may advantage some interests in the United States who own or control the sources of such materials in those countries or other countries. But at the same time its operation in such case would place the mark of death upon other interests of the United States, especially those which are concerned in the production of these raw materials.

In dealing with the tariff the members of the House of Representatives should exercise to the full their constitutional right to frame revenue bills, and their common-sense patriotism in framing a bill that, while creating a basis for revenue, will not sacrifice to the benefit of individuals, interests or sections that have flourished under a tariff which has protected American industry, whether manufacturing, mining, lumbering or agricultural, the individuals, interests or sections that have not yet been able to avail themselves fully of the protection principle in practice and are capable of supplying for an indefinite period the "raw materials" required in American industry.

Suggestions bearing upon this fundamental duty of the Congress are made at some length on another page of this issue of the MANUFACTURERS' RECORD. The suggestions avoid the diversions from the main issue in the Payne Tariff Bill. It will be time enough to discuss them when the main issue, the principle that is to prevail in tariff revision, has been settled, where it should be settled and maintained, in the House of Representatives, and as it should be settled, in a spirit of equity for all, without regard to alleged party lines or traditions.

### IMMIGRATION.

Referring to initial steps taken by his company for the settlement in Western Louisiana of German immigrants, F. E. Roesler, traveling, passenger and immigration agent of the Kansas City Southern Railway, Kansas City, Mo., informs the MANUFACTURERS' RECORD that about 10 families have already been settled, and the work of publicity, including the circulation of a pamphlet in the German language describing in more or less detail Calcasieu and Vernon parishes, is being pushed. We are also informed authoritatively that in the past 18 months about \$250,000 of Scotch money has been invested in Virginia lands, and that three Scotch tenant farmers are now on their way to Virginia, one with \$4000, another with \$7000 and a third with \$10,000 to invest in lands there. This exhibit is due to the work of Hon. G. W. Kolner, State Commissioner of Agriculture and Immigration, who has confined his work abroad to Great Britain, and chiefly to Scotland. He has had apparently two main purposes—one that quality rather than quantity is to be assured in immigration, and the other that everything done to that end shall be a permanent foundation for fu-

ture work upon ever-broadening lines. The immigration campaign for Virginia and for Louisiana reflected in this information is the kind that the South wants. The kind of immigration that the South does not want is suggested in the news from New York that on Friday last six big ships entered its harbor with 9403 steerage passenger. The ships and their steerage lists were as follows: The Venezia, from Naples, 1380; the Lazio, from Naples and Genoa, 1990; the Graf Waldersee, from Hamburg, 2205; the Finland, from ports on the Mediterranean, 1350; the Lithuania, from Russian ports, 928; the San Giorgio, from Russian ports, 1550.

Most of these steerage passenger come from Southern Italy, with Russians and Poles next in number, both classes equally undesirable.

In connection with this should be read this statement from the New Orleans Picayune:

Since the abandonment of the Austro-American service operated part of last year and during the fall of 1907 there is no regular immigrant line from New Orleans to Italy. But while the Austro-American was running regular immigrant boats some 5000 aliens came over, the greater part of them from Southern Italy and Sicily. A resumption of the immigration movement, which is

probable for the near future, would mean the influx of a steady stream of humanity from a territory close to that section where the Mafia is supposed to have its headquarters.

On top of all of this is the announcement from Washington that the Government of Italy, through Ambassador Mayor des Planches, has proposed an international conference on immigration, and that the proposition has been referred to the bureau of immigration of the Department of Commerce and Labor. Unless the country becomes promptly aroused to the significance of this proposition and induces caution, it may be expected that the so-called National Council of Commerce, which is to meet at the Department of Commerce and Labor next week, will endorse it, and that this endorsement will be seconded by the alleged Southern Commercial Congress.

In view of the active interest of the Italian Government in the immigration to this country of its citizens, especially those of the undesirable classes in Southern Italy and Sicily, we suggest that it is about time for the United States Government to tell the Italian Government and other Italian influences to keep their fingers out of American questions.

### CONSERVATION IN FARMING.

Less than ten years ago representative farmers of Accomac and Northampton counties, Virginia, organized the Eastern Shore of Virginia Produce Exchange, a co-operative effort in the marketing of products. The eminent success of the undertaking, which has acquired fame through the country, is indicated by the summary of its business in 1908 made by the *Enterprise* of Wytheville. The exchange handled 1,322,827 packages, an increase of 210,589 packages over the number handled in 1907, and \$2,500,000 represented the results. Of the packages, 505,484 were barrels of Irish potatoes, 630,056 were barrels of sweet potatoes and 197,277 were packages of other produce. In one day 140 carloads were shipped from the several agencies of the exchange, and the total of 5297 carloads were handled during the year. The plan of the organization, which has been so successfully worked out, contemplated thorough acquaintance with market conditions, so that shipments might be made promptly to the best offerings, and the maintenance of a high standard of the products by rigid supervision of grading and packing and by the use of uniform standard packages. Correlative to this the Exchange has undertaken to improve the character of the products, and to that end has distributed for the coming season 120 carloads of the best seed potatoes that could be had, and this distribution is followed up by conferences from time to time, at which are discussed topics bearing upon the whole plan. The Eastern Shore of Virginia Produce Exchange was something of a pioneer in the South, but its success has been duplicated by other organizations, such as the East Carolina Truck and

Fruit Growers' Association, which in the twelve or thirteen years of its life has shipped, besides cantaloupes and vegetables representing about \$4,500,000, nearly 4,500,000 crates of strawberries, valued at \$13,949,000, and the Southern Texas Truck Growers' Association, organized in 1906, which last year shipped 2400 carloads of onions, the vegetables grown by about 500 men being systematically marketed under the direction of a sales manager, who earns something like \$15,000 a year. These organizations, scattered here and there in the South, and increasing in number, are becoming most efficient agents of conservation. They are saving waste not only of energy of individuals seeking a market for their products, but also of the products themselves; they are cultivating the tendency to steadiness of demand for the products because of their self-maintenance of reputation, and they are strengthening the movement for diversification in agriculture, and a diversification grounded in the principle of quality rather than quantity.

#### ANTHROPOLOGICAL.

In the closing hours of the Sixtieth Congress a resolution in the Senate called for some statement relative to the work and the expenditures of the Immigration Commission created under the act of February 20, 1907, more than two years ago. The statement has been furnished. It shows total disbursements of \$344,795 between April 1, 1907, and February 27, 1909. It shows that the scope of the inquiry was likely to continue until Kingdom Come if Congress, in its wisdom, did not cut off supplies. The why of the commission seems to be epitomized in the following:

It is the object of this investigation to determine the influence of immigration upon the physique of the American people.

For this purpose the physical development of the immigrants and of their descendants are being compared with the physique of native-born Americans. The social and geographical environments of America are liable to bring about changes in type which may result either in a retardation of development and the degeneration of the foreign type, or in an acceleration of development and improvement of type. There are indications that the influence of American environment may act favorably upon some races and unfavorably upon others. It is, therefore, important to know how the descendants of various races develop individually as well as in numbers.

A second problem that is being investigated is the influence of immigrants, through intermarriage with the native born and with one another, upon the physique of the American people, with the object of determining whether a deleterious influence results, or whether beneficial influences will not be felt.

Investigations are also under way with a view of determining whether the continued influence of American environment, combined with the progressive intermixture of racial types, will bring about a greater homogeneity of later generations, as compared to the physical diversity that characterizes those parts of the country that receive a large portion of the incoming immigration.

Leaving to former President Charles W. Eliot of Harvard University the dissection of the racial science in these paragraphs, it may be pointed out that this anthropology under National Government auspices has already cost \$2272, and is continuing at a cost of \$250 a month for one anthropologist in charge, \$100 a month for one assistant, \$75 each a month for two assistants and \$15 each a week for two computers, while the anthropologist in charge and his chief assistant are allowed actual and necessary traveling expenses and \$3.50 per diem in lieu of subsistence when they are away from their official station on business for the commission, and that the anthropological forces constitute but one thirty-third of the total

number of persons employed under the commission, not including individuals on the salary list who are drawing other salaries from the Government.

It is obvious that this phase of anthropology was likely to continue indefinitely and that the commission could not dissolve until anthropology rested from its labors. Congress fixed March 1 next for the end. Congress, facing a stringency in national finances, has a suggestion in this that may help it to solve the problem. Congress ought to cut out from all auspices of the National Government expenditures in the cause of anthropology, sociology and all the other ologies with which the National Government has by rights nothing to do. Having dissolved the Immigration Commission for good and all, and then, having had a statement relative to the work and expenditures of the investigation into the labor of women and children under the auspices of the Commissioner of Labor, including the list of employees in that investigation and the names of the colleges with which they have been connected, it should dissolve that investigation. The debates upon the two investigations would probably furnish the means for enlightened traveling through the labyrinth of other investigations of the kind in various Government bureaus to the point where millions of dollars annually could be saved by ending the investigations.

#### CONVERTED FROM OGDENISM.

The Rev. S. H. Thompson, pastor of the First Baptist Church, Bluefield, W. Va., who at one time was favorably impressed with the promise of the so-called Ogden Movement for the Education of the South, writes to the MANUFACTURERS' RECORD:

There are two questions asked in your issue of March 4, 1909, which should brand themselves into the heart fiber of every Southern man. Here you ask, "Can the announcement of the completion of the million-dollar endowment of the University of Virginia aid 'literary merit and structural quality' in giving in a historical 'prize essay' (on Lee) a shadow of truth to the statement in the essay that in 1861 'Intellectually the South was practically dead—most of the people were densely ignorant'? Furthermore, does the democratization of education in the South mean that that essay judgment is to prevail in the interpretation of history with which the South is to be doled?"

When this Ogden movement began I was favorably impressed with it, for I was one of those enthusiastic souls that wanted every good thing for our people that could be had. But if the giving of money is to cause our youth to belie the fathers, to deny the truth of history and achievement, then I prefer the waste of war and its consequent poverty to abide as our portion rather than such monumental misrepresentation, with all the wealth of the nation.

There are two historical facts that should be pondered and made a part of every Southern citizen's mental possession: First, that the South intellectually had no superior prior to 1861. Education began from the beginning in our colonies, continued under the State commonwealths, and was only checked by the terrible ravages of the Civil War. I wish to refer to North Carolina as an example, although that State is considered as being farther behind than any other in those ante-bellum days.

The Convention of 1776 provided for public schools in the first Constitution of the State in these words: "A school or schools shall be established by the Legislature for the convenient instruction of youth, with such salaries to the masters, paid by the public, as may enable them to instruct at a low price."

Twelve years after the Revolutionary War closed the University of Chapel Hill was opened and its first students enrolled. In 1798 the first class of seven members was graduated with the degree of A.B. By the year 1860 a complete system of public schools was fully established, with a State superintendent, county examiners, a normal school, a Journal of Education, a series of State readers and many splendid private acad-

mies, besides the various flourishing denominational colleges throughout the State. The census of 1850 gave the school statistics as follows: Schools, 2657; teachers, 2730; pupils, 104,095; length of term, four months. In 1858 North Carolina had a school fund larger than Maine or New Jersey by \$1,500,000, larger than Massachusetts by \$500,000. President Swain, addressing the patrons of the University in 1860, said: "Half the States of the Union are represented in our catalogue. We have students from about 30 colleges in various parts of the country, from Vermont to Texas." Among the men who had been students in this university were such as Vice-President Wm. R. King, United States Senator Thomas H. Benton of Missouri, United States Senator John H. Eaton of Tennessee; John Witherspoon, president of Miami College, Ohio; Rev. Francis Lister Hawks, professor of divinity, Trinity College, Connecticut, president of American Geographical Society and author of many valuable works; John Y. Mason of Virginia, twice in the United States Cabinet and once Minister to France; James Knox Polk, President of the United States; Frederick Divoux Lente, M.D., founder and president of the American Academy of Medicine; Francis Preston Blair, United States Senator and major-general in United States Army. These are but a moiety of the great names found on the rolls of this university. To sum up, it appears from the imperfect roster to which this article appeals as its authority that there were from this school alone prior to 1860 one who became President of the United States, one Vice-President of the United States, ten Cabinet officers, 12 Ministers to foreign countries, 15 Governors of States, 55 Judges, 14 United States Senators, 35 members of Congress, 3 presidents of colleges outside of North Carolina, and 12 eminent professors outside of the State.

If you had space to record it there might be mentioned Salem Academy for Girls, founded in 1802, at a time when Massachusetts would not allow her schoolhouses to be used for girls; St. Mary's, 1842; Chowan Female Institute, 1848; Greensboro Female College, 1846, and many others of like grade. From these schools have gone women who have graced the White House in Washington and who have been queens in all parts of the world among the great of earth. And yet, and yet, we are gravely told in a prize essay submitted to Southern educators as judges that in 1861 the South intellectually was dead and most of her people were densely ignorant. Such ignorance is inexcusable, else these statements are wilfully and perversely made to further misrepresent the real facts in the case.

The second fact that our people should know is one of history as it is today among those who arrogate to themselves the function of teachers and examplers to the rest of the nation. I quote Rev. O. P. Gifford, D.D., pastor of one of the leading churches in Boston, Mass. He says: "Rural New England is barbarous and pagan." This statement is found in a late number of the *Baptist World*, one of the most widely read religious newspapers in America. I most respectfully submit, if the reverend gentleman can be believed, our friends who are yearning over the terrible condition of things among us, things which exist only in their imagination, might spend some time profitably in remedying this state of barbarism and paganism in the vicinity of the "Hub." I surely know of no section in the South of which I could conscientiously say it was barbarous or pagan. I close this with a quotation from the renowned Josh Billings, in which he says: "A man had better not know so much than to know so much that ain't so."

We are charitable enough to believe that some graduates of Southern institutions of learning who have become enmeshed in the coils of the Ogden Movement, a popular designation of the campaign promoted for 10 years by the influence behind what is now known as the General Education Board, are ignorant of the history of their alma maters, just as ignorant as they are of the history of their country. Our correspondent on this point should bear in mind that the Ogden Movement has had comparatively little to do in New England, because educational leaders in that section have their native wits still well in hand, however unsuccessful their system of education may be in accomplishing the purposes of true education. He should also possess his soul in patience in the thought that the logical convic-

tion of several of the shining lights among Southern "educational" leaders of today must be that the fundamental trouble with education in the South before the war was that they, because they were not even born then, had no opportunity to show such waybacks, from these recently-fledged educational statesmen's viewpoint, as Robert L. Dabney and James M. Garnett of Virginia, A. D. Murphey of North Carolina, James H. Thornwell of South Carolina, D. S. Walker of Florida, A. B. Meek of Alabama and George Eustis of Louisiana, all about education and the democratization thereof. But how those old fellows, who were essentially educated and cultured, would laugh at the wonder-performances of the Recently-Fledged! How they would break their hearts over the hobnobbing, for the sake of a few dollars and cents for their institutions, of these unwitting philosophers with the survivals of the element that always resented the gentility of the South and was unrelenting and unsleeping in its efforts to besmirch that gentility and to humiliate its survivals by hook or by crook!

#### INTO THE SOUTHERN COMMERCIAL CONGRESS' MIDRIFF.

Calling it very properly and very accurately "A Monument to Folly," and protesting against eminently successful publicity work for New Orleans being diverted into advocacy of the Southern Architectural Monument under the auspices of the late Southern Commercial Congress, the *Daily American* of Lake Charles, La., says:

If Mr. John M. Parker and his wealthy associates desire to erect a big office building in Washington, no one has any objection. If they wish to call it the "Southern Building" and dedicate a part of its vast interior to making exhibits of the products of Southern skill and industry, they will get due credit for their patriotism.

But we do not gather that Mr. Parker and his associates have any intention of providing the building themselves. They have made a comparatively small contribution, aggregating, we believe, about \$20,000, sufficient to buy an option on the site selected for the building, and want the people of the South to furnish the rest of the million dollars which it is estimated the building will cost.

We can see no justification for this attempt to tax the South with the cost of a building in a city almost beyond her borders upon the ridiculous plea that such a building will be an "advertisement" for the South. It would not be hard to find a thousand ways in which a million dollars could be used to exhibit the South to better advantage.

If we could persuade the rubbernecks who would view the completed structure that money in the South was so plentiful, so easy to get, so abundant on every bush and shrub, that its people were obliged to resort to such fool ways as this merely to get rid of it, there might be a certain amount of advertising value in the "Southern" building; but the people who would be most firmly impressed in that direction are the sort who would have about enough money to buy a one-way ticket and pay board for a few weeks while they rustled up a job.

Without dealing at this time with the interesting, though incomplete, history of the real estate deal connected with the site of the proposed Southern Architectural Monument at Washington, and without doing more than mentioning the announced sums "pledged" for the scheme, varying from \$300,000 on December 11 at Washington and \$150,000 more on December 17 at New Orleans to the \$23,000 at Atlanta on January 15, it may be suggested that the individuals who, above all others, would, as the Lake Charles *Daily American* rightly judges, be attracted to the South by the advertisement in the "Southern" building would heartily sympathize with the plight of the accouchers of the Southern Commercial Congress when they hit the



pike for Washington. It seems that there were three of them, and one of them stated that they "reached Washington with only \$175." That was about \$58.33 1/3 apiece—not a big margin for four or five days' stay in the Capital of the Nation. Of course, they did not have to pay the expenses of the Congress. The authority as to the finances of himself and his two associates also stated that the \$1200 to pay the expenses of the thing was taken up in a few minutes, "besides \$700 more which was voted for the publication of the proceedings," a publication that must have been circulated largely in Europe, if it has ever appeared at all. But the collection seems to have been taken before the "angels" entered boldly where fools feared to tread. Entrance of "angels" was marked by a little dinner, the first of the series in expectation that 1000 Southern men capable of making \$1000 would contribute that sum each toward the Southern Architectural Monument—to folly. That hope has faded. Now, according to authority, the object is "to have every city, town and hamlet in the South subscribe something to the fund." So it was announced at the third dinner of the series.

Noting, in passing, that the \$175 trio managed in some way or other to get back to their respective cities, and returning to the question of advertisement by means of the scheme, the expectation was voiced on December 11 that the far Southern city which had been selected to mother the scheme would "retain the lead in advertising and reputation already given it by the Congress." That expectation has been justified. The call of the dream-child to Washington was so vociferous that its putative father was moved to resign his position with the Commercial Club of the advertised city, and it was so well and widely advertised that more than 400 applications have already been received for the position, and the local paper has remarked:

It may be that the army of the unemployed is far greater than the good people suspect, or perhaps it is that the secretaryship of the Commercial Club is a most desirable post.

Those applicants undoubtedly know a "good thing" when they see it. The advertisement that that city has received through its alleged maternity of the scheme is just about the kind of advertisement the South would receive should the bantling ever be freed from swaddling clothes. And it may be interesting to call attention to the fact that the number of applicants for the position vacated by the reputed father of the Southern Architectural Monument coincides with the number of the "army of the unemployed" that Coxey led to Washington in 1894 with a wealth-creating scheme just as practical and just as promising as that of the Southern Commercial Congress.

#### FOR LOUISIANA.

I was very much surprised at the great improvement in the Southern States in the past 10 years. They certainly have advanced in all their undertakings, and the improvements in the cities and surroundings are astonishing.

That extract from a letter to the MANUFACTURERS' RECORD from Mr. F. W. Powell of Ottawa, Ontario, one of a party of Canadian lumbermen who recently visited Louisiana, suggests that Canada might be a good field for immigration work in the interest of the South. Louisiana might lead in that work, turning the campaign upon the tie of sentiment between the maritime provinces of Canada and the Pelican State. More than a century and a half ago there was a forced emigration from

those provinces of a sturdy people who had rescued from the sea, by means of dykes, great stretches of fertile soil, from which they gathered the largest possible crops in a short season. Some of these exiles made their final stand in Louisiana, and their blood flows in the veins of some of the most progressive men of the State today. About a dozen of such men ought to take a few weeks off from business some summer and return the visit of the Canadian lumbermen by making a sojourn in the provinces where once were the homes of their ancestors. They will be repaid for their trip by the pleasure they will derive from it. But they can combine business with pleasure. Last summer a body of men representing the agricultural interests of Scotland made a tour of Nova Scotia, investigating the opportunities in that province for young Scotchmen. The Louisianans should be loaded with facts and figures to prove to the Nova Scotians the desirability of Louisiana not merely for agriculture, but also for divers kinds of manufactures; they should make clear the wonderful resources of the soil of their State, whether already tillable or merely awaiting either irrigation or drainage to become fruitful acres; the delightful climate under the influence of the Gulf and the sure material progress of the whole State with the increased industrial and commercial importance of New Orleans, Shreveport and other communities. Such a trip would be one of the best advertisements of Louisiana that could be devised, and would be a most practical means of promoting immigration to that State.

#### IN BRILLIANT OBSCURITY.

In a farewell message to his journalistic brethren Editor Roosevelt, on the eve of departure for the Dark Continent, warned everybody whom it may concern "that while I am on steamer or railway there will be nothing whatever to report; that when I leave the railway for the wilderness no persons will have any knowledge which will enable them to report anything, and that any report is to be accepted as presumably false." That is a splendid guarantee that Editor Roosevelt's own writings about his African trip will be in the nature of distinct scoops for the periodical that has engaged his exclusive services in this particular. It also emphasizes the truth that some folks are best able at times to occupy a large place in the public eye by disappearing temporarily from public view.

#### THE INLAND WATERWAY.

The announcement by the War Department of the Board of Engineers who are to survey the route of the proposed inland waterway between Cape Cod and Beaufort Inlet, and to prepare an estimate of its cost to be submitted later to Congress, is a step forward toward the accomplishment of the wise plan for giving safe and sure navigation within the coast line of the United States from the Rio Grande to Massachusetts Bay. Upon long stretches of this route advantage will be taken of existing waterways, such as the Chesapeake Bay and Mississippi Sound, some artificial waterways are to be deepened and some actual digging is to be done.

#### THE C., C. & O. ROUTES.

The editor of the MANUFACTURERS' RECORD has been quoted in the South as saying that the Carolina, Clinchfield & Ohio Railway will probably build to Savannah instead of to Charleston. This should have read "Savannah as well as Charleston," as our information leads us to believe that the road will go to both ports.

## COMMERCE-CULTURE BY CLUB AND CHLOROFORM.

[Written for the Manufacturers' Record.]

In the stone age, which left its records in caverns, in the bottoms of lakes, in shell heaps and in kitchen-middens, when prehistoric man wanted to add to his possessions he knocked the other fellow down with a club and took what he could. If the other fellow was a better clubber, the aggressor was obliged to give up even that which he had. Such was the essence of primitive trade. Its spirit, devoid, though, of troglodyte simplicity, permeates the bill introduced last week—in the year of civilization 1909—in the House of Representatives at Washington, "To provide revenue, equalize duties and encourage the industries of the United States, and for other purposes." It does not appear on the surface of the proposed tariff "revision," but a careful study of the measure suggests what its final form may be unless the members of the House of Representatives, in dealing with it in Committee of the Whole, eschew generalizing tariff oratory, based largely upon lack of comprehension of the measure as a whole, and devote their time for the next month to a careful analysis of all the 43 sections of the bill, to the eliciting of definite information about the purpose and probable effect of each section considered by itself and in relation to all other sections and to the evolution, from this careful and businesslike consideration, of a measure that shall encourage other countries to trade with us without sacrificing their integrity and without suffocating our own interests.

Sharp scrutiny by intelligence is demanded lest the "Payne Bill" take permanent form as a measure for cultivating commerce by club for foreign nations and by chloroform for American interests.

Much has already been published assuming to set forth the changes from the schedules of the Dingley Act in the schedules in Section 1 of the Payne Bill and in Section 2, the alleged "free list" of that bill. Such publication is utterly misleading without a knowledge of the ramifications involved in the workings out of the minimum and maximum provisions of Sections 3 and 4 and of the effects of the abrogation under Section 7 of commercial agreements now existing between the United States and other countries.

Broadly speaking, this minimum and maximum theory of the Payne Bill is exactly contrary to a minimum and maximum principle upon which mutually beneficial trade among different countries may flourish, and directly contrary to the principle of reciprocity in the Dingley Act. The wise principle fixes the maximum tariff as the one which is to be reduced to the minimum in exchange for concessions on the part of other countries. The Payne Bill theory fixes the minimum tariff, including the "free list," as the one to be increased to the maximum if other countries do not immediately or by the time when existing commercial agreements shall end come to the trade point of view of the United States. The difference between the two is the difference between reciprocity and retaliation, between a tender and a threat.

Section 4 provides that "until sixty days after the passage of this Act, and whenever thereafter any country, province, dependency or colony admits each and every article imported into said country, province, dependency or colony from the United States, or any of its possessions, the growth or product in whole or in part of the soil or industry of the United States or any territory belonging thereto, upon payment thereon of duties, imposts, excises or taxes which shall not be in excess of those levied upon like articles imported from any other country, province, dependency or colony, and admits such articles on terms as favorable as those accorded to any article imported from any other country, province, dependency or colony there shall be levied, collected and paid upon articles imported into the United States, and all territory belonging thereto (except the Philippine Islands), from such country, province, dependency or colony, the growth or product of the soil or industry of such country, province, dependency or colony, and whether such articles are shipped from the ports of such country, province, dependency or colony or from any other foreign port or ports, the rates of duty prescribed in section one of this Act, and in like cases the articles mentioned in section two of this Act shall be admitted free of duty."

This Section 4 also provides that in case such concessions shall not be made by foreign countries, Section 3, fixing the maximum tariff, shall go into effect. Members of Congress should know definitely what the rates thus fixed as the maximum would be, and how they would affect American industries. A few illustrations may suggest the importance of such knowledge.

On the new "free list" in Section 2 is carried from the free list of the Dingley Act sulphuric acid of certain quality for certain purposes, though a duty of one-fourth of one cent a pound is placed upon sulphuric acid imported from any country not admitting our sulphuric acid free. No change is made in this item under the new maximum arrangement, although that arrangement provides that, in the absence of concessions, the maximum duty of 20 per cent. ad valorem shall be placed upon sulphur or brimstone, crude, in bulk, sulphur ore as pyrites, or sulphuret of iron in its natural state, which otherwise is on the free list.

The Dingley Act admits free crude or refined petroleum, provided, that if there be imported into the United States crude petroleum or the products of crude petroleum produced in any country which imposes a duty on petroleum or its products exported from the United States, there shall in such cases be levied, paid and collected a duty upon said crude petroleum or its products so imported equal to the duty imposed by such country. That proviso is maintained for petroleum on the free list in the Payne Bill, but in addition the maximum duty of 20 per cent. ad valorem is to be levied in the absence of concessions.

Similar maximum duty is to prevail under similar circumstances for cottonseed oil, which under the Dingley Act has a duty of four cents a gallon but is added to the "free list" in the Payne Bill.

Under the Dingley Act iron ore, including manganese iron ore, has a duty of 40 cents a ton. In the Payne Bill this is placed upon the "free list," subject to the conditional maximum duty of 20 per cent. ad valorem.

The Payne Bill reduces the duties on timber, sawed boards, planks, deals and other lumber of white wood, sycamore and basswood, and on all other sawed lumber, but expands the proviso of the Dingley Act as to certain export duties by other countries into a proviso that if any other country imposes any export charge or other discrimination against any forest product exported to the United States the rates of the Dingley Act shall be levied upon all the forest products of that country when imported into the United States.

That brings one naturally to the paper schedule of the Payne Bill. First, as to a material for paper. The Dingley Act places a duty of one-twelfth of one cent a pound

upon mechanically ground wood pulp, and provides that if any country shall impose an export duty upon pulp wood—not wood pulp—exported to the United States, the amount of such export duty shall be added to the duty upon wood pulp. The Payne Bill imposes the same duty, but admits mechanically-ground wood pulp free from any country that does not impose any restriction or export charge of any kind either upon mechanically-ground wood pulp or upon wood for use in the manufacture of wood pulp, and provides that if any country shall impose an export duty on pulp wood exported to the United States the amount of such export duty shall be added to the duty upon wood pulp.

Wood pulp, which might possibly be classed as a forest product in the timber schedule, appears again in the paper schedule of the Payne Bill. Singularly enough, the report of the Committee of Ways and Means does not dwell upon new classifications introduced in the paper schedule in the lower-priced papers, nor does it emphasize the change that has been made from the Dingley Act in the proviso regarding the imposition of export charges by another country. The Dingley Act provides that an export duty upon pulp wood exported to the United States shall be matched by the imposition upon printing paper imported from the same source of an additional duty of one-tenth of one cent per pound for each dollar of export duty imposed per cord of pulp wood. The Payne Bill provides that any export charge or restriction upon not only pulp wood, but also wood pulp or printing paper, shall be matched by an additional duty upon printing paper imported from the same country amounting to two-tenths of one cent per pound, when valued at three cents per pound or less, and in addition the amount of export duty imposed upon the printing paper imported from that country into the United States. And the contingent maximum duty under Section 3 is an additional 20 per cent. of the duty fixed as the minimum.

While the complications in the lumber, pulp and paper schedules seem calculated to work to the marked advantage of interests in the United States owning timber and paper material in Canada, Mexico or other lands, they hardly promise a reduction in the price of printing paper, which was supposed to be behind the agitation for reduced tariff upon wood pulp and lumber. In this connection is quite interesting the following from the Washington Post:

Members of the Ways and Means Committee have been advised that the lumber combine which strenuously advocated free lumber before the committee is now earnestly at work with members of the Provincial Legislature at Victoria in an effort to put a proposition through that body to have their present leases, which now run for 21 years, made perpetual.

The organization is declared to be planning to enter Canadian politics on a large scale at the next election, and it has appeared so strong that both Conservatives and Liberals are seeking its support. When the lumber schedule was before the Ways and Means Committee the Minneapolis combine sought to have lumber placed on the free list. It was then revealed that its interest was not in making the product cheaper for the American consumer, but to enable the holders of leases upon Canadian timber lands to get their product into the United States without the payment of duty.

Although they did not succeed in doing this, they were able to get the rates cut in half, and, with this much accomplished, they are said to be seeking to get their Canadian leases extended indefinitely, and thus control absolutely the lumber trade of the country. A part of the scheme is to swamp the Pacific Coast with the British Columbia product, deplete the Canadian limits, and thus double the value of the holdings which they also have in the American Northwest.

This statement, which is reproduced here without vouching for its accuracy in every detail, will be read with special profit by the editors of newspapers who have been reading at intervals quite expensive literature circulated directly from Minneapolis or indirectly through editorial communications and using the plea of the conservation of our forests in advocacy of letting down the bars for foreign forest products. If the enlightenment on that point is extended to a study of the connection between ownership in other lands by interests of the United States of iron ore, coal and other so-called "raw materials" that these interests would admit free of duty, whether directly or indirectly, some of the main impulses of tariff "revision" would be revealed in all their horrid selfish nakedness. Upon bituminous coal and upon coke there is a contingent maximum duty of 20 per cent. of the minimum duty, which is 67 cents per ton for coal and 20 per cent. ad valorem for coke, but the minimum duty has the provision that both coal and coke shall be imported free of duty from any country which imposes no duty on coal or coke imported from the United States. What would be done in the event of an export duty upon such coals of foreign origin does not seem clear in the Payne Bill.

All of these propositions as to ultimately free "raw material" as affected by the minimum and maximum plan, and likewise all the proposed reductions in the building material list, such as marble, the iron and steel list, the textile list, etc., as well as certain increases in the same lists, should be carefully analyzed by members of Congress before they act finally upon the bill, so that they and their constituents may understand thoroughly the effect of their action upon the welfare of the country. As it stands, the Payne Bill is full of opportunities for mistakes seriously detrimental to the material welfare of the country.

The difficulties to be overcome in preventing a sacrifice of many interests for the benefit of a few have, perhaps, already been broadly suggested here. Another instance is coffee. The Dingley Act placed coffee upon the free list, but provided, as a means to secure reciprocal trade, that a duty of three cents per pound might be placed upon it if the country exporting it should be found to be placing unequal exactions upon imports of products of the United States. Coffee remains upon the free list in the Payne Bill. But it is provided that if any country impose an export charge of any kind upon coffee coming to the United States an import duty equal to such export charge shall be laid upon it. In meeting this provision the House of Representatives should devise some enactment preventing interests that may have imported coffee in great quantities in anticipation of the levying of an import tax from gaining any advantage in increased prices for coffee that may be attributed to that tax.

Interest of the people of the United States should be rigidly conserved by Congress in dealing with the changes in the Payne Bill in the provisions for the freedom from duties of all materials of foreign production necessary for the construction of vessels built in the United States for foreign account and ownership or for the purpose of being employed in the foreign trade. The Payne Bill in Section 23 reproduces Section 12 of the Dingley Act on this point unchanged. But there is quite an important change bearing upon this in the section dealing with drawbacks upon articles manufactured in this country from foreign materials. Section 30 of the Dingley Act provides:

That where imported materials on which duties have been paid are used in the manufacture of articles manufactured or produced in the United States there shall be allowed on the exportation of such articles a drawback equal in amount to the duties paid on the

materials used, less one percentum of such duties: Provided, that when the articles exported are made in part from domestic materials, the imported materials, or the parts of the articles made from such materials, shall so appear in the completed articles that the quantity or measure thereof may be ascertained.

There is a marked change on this point in Section 29 of the Payne Bill, which provides:

On the exportation of articles manufactured or produced in the United States, either in whole or in part of imported materials, or from domestic materials of equal quantity and productive manufacturing quality and value, such question to be determined by the Secretary of the Treasury, there shall be allowed a drawback equal in amount to the duties paid on the imported materials used, or, where domestic materials are used, to the duties paid on the equivalent of imported materials, less the legal deduction of one per cent.

The privileges of this section shall apply to materials used in the construction and equipment of vessel built for foreign account and ownership, or for the Government of any foreign country, or for the purpose of being employed in the foreign trade, including the trade between the Atlantic and Pacific ports of the United States.

The privileges of this section shall apply to articles manufactured or produced in the United States, when such articles are intended for consumption on vessels clearing for foreign countries, after their departure from the United States, under such regulations as the Secretary shall prescribe.

Articles of domestic manufacture and production subject to internal-revenue tax may be withdrawn from bonded warehouse free of tax, to be consumed on vessels clearing for foreign countries, and, after their departure from the United States, under such rules and regulations as the Secretary of the Treasury shall prescribe.

That on the exportation of articles manufactured or produced in the United States in part from domestic alcohol on which an internal-revenue tax has been paid there shall be allowed a drawback equal in amount to the tax paid on the alcohol so used.

The House of Representatives should consider the possible analogy between the provisions in the last two paragraphs quoted and the legislation of two or three years ago as to tax-free denatured alcohol, which, as it became law, had an effect exactly contrary to the one designed by disinterested advocates of denatured alcohol, who expected to obtain a cheap fuel for industry. But what is of far greater importance, the House of Representatives should determine whether the provisions in the first three paragraphs of Section 29 here quoted may not, in actual practice, whatever their intent, permit the payment of an export bounty virtually.

Interests of the people of the United States are, of course, to be considered first in any revision of the tariff. Directly and indirectly those interests will be affected by the attitude of other countries with whom we would trade toward the provisions advanced in the Payne Bill. Reciprocity of the right kind is submerged, with one exception, in the minimum and maximum plan. Reciprocity of the right kind implies not an interchange of the same products between this country and other nations under threat of retaliation, but an exchange upon a basis of mutual advantage of products of this country that we have to spare for the products of other countries that they have to spare. But even though foreign nations should fall in with the minimum and maximum plan of the Payne Bill, they would be embarrassed and we should be embarrassed by other provisions. These include the countervailing duties of a retaliatory character as to certain articles, the maintenance intact of the reciprocity treaty with Cuba in the face of the abrogation under Section 7 of all commercial agreements provided for by the Dingley Act, and the haziness of Section 5, treating of the Philippine Islands, especially its provision that duties shall be collected upon importations into the United States from the Philippines in any fiscal year of sugar in excess of 300,000 tons, of certain tobaccos in excess of 300,000 pounds, of certain other tobaccos in excess of 3,000,000 pounds, and of cigars in excess of 150,000,000. Then there are the provisions for imposts to meet export charges made by other countries, additional imposts equal to bounties or grants made by other countries upon merchandise exported to this country and the proviso as to maximum duties that they shall not apply to cases where preferential duties concern merely the relations of a mother-country and its provinces, dependencies or colonies.

No attempt has been made here to discuss the merits or demerits of particular items or groups of items in the proposed tariff revision. The new questions of administration involved in the Payne Bill have not been considered; nor has any reference been made to the proposed inheritance tax and the provisions for a sale of Panama Canal bonds and the increase of certificates from \$100,000,000 to \$250,000,000 face value. Such questions had best be left for discussion after Congress shall have determined what principle is to prevail in tariff revision.

## DEVELOPING GRAVEL DEPOSITS.

### St. Louis Capital Engaged in a Louisiana Undertaking.

[Special Cor. Manufacturers' Record.]  
New Orleans, La., March 20.

As an instance both of Southern development and the part St. Louis capital is widely taking in the work, the operations of the Southern Gravel & Material Co. are interesting. The company has a fully paid capital of \$200,000, and owns a 1500-acre tract near Brookhaven, Miss., 130 miles north of New Orleans, on the Illinois Central Railroad. All this land is underlaid, at a depth of only a few inches from the surface, with a fine body of flint gravel. The Illinois Central Company formerly operated on the developed part of the tract, and there is now a facing of 40 feet of gravel extending along the old pit for more than a mile. Borings showed that there are at least 65 feet of the same gravel below the floor of the pit, or over 100 feet of a solid gravel body. It is estimated that 30,000,000 cubic yards of gravel are contained in the property.

Outside the unusual character of the deposit, the situation is notable in the character of the developments that have occurred. The Southern Gravel & Mate-

rial Co. has constructed a plant for washing and sorting the gravel, and for separating and saving the sand that is a model of its kind. Built by the company according to designs by J. C. Buckbee & Co. of Chicago, the plant has a capacity of 100 carloads of washed gravel per day, and the washer is so constructed that its capacity may be doubled when desired. The washer has a set of conical screens, which sort the gravel into four different sizes, to be conveyed from bins by chutes to cars as required. The gravel is loaded from the pit onto cars by a steam shovel, Atlantic type, American Locomotive manufacture, of 1909 model. It is of two-and-one-half-yard size, five dips to the minute, and loads a car in three minutes. The gravel is dumped from the cars into a hopper, and from there taken by belt conveyor to the washer. The maximum of automatic handling by machinery prevails throughout the operation of digging, washing and loading the product for shipment.

The power-house is equipped with a 60-horse-power Erie engine, and the boilers are from the Erie City Boiler Works. The hopper and the sills and foundations for all the buildings are of concrete construction. The engine-room is ironclad, with



floor as well as foundations of concrete. An ample supply of water has been secured by throwing up a levee bank and impounding rainwater. The water after use in the washer is returned to the pond by a flume.

The company began operations in February. A 20-year contract has been entered into by which the Illinois Central Railroad is to be furnished a minimum of 300,000 yards of washed gravel a year. The Illinois Central is likewise taking concrete mixture for platforms and sidewalks around its stations. The company also has a contract to furnish the Mississippi Central road 100,000 yards of bank-run gravel. Contracts have been filled for concreting gravel for the United States naval station at Algiers and the Audubon office building, New Orleans. The latter was for a concrete mixture of gravel and sand, ready for the cement upon delivery at the building. A feature of the company's operations will be the furnishing of a concrete mixture in such proportions as may be desired, so as to avoid any further mixing or rehandling. The company's product will be classified as ballast, concreting gravel, roofing gravel, torpedo sand and concrete mixture. It is proposed also to put in a screen to secure "Injun" sand for use in the sand boxes of locomotives.

The company figures on covering the territory composed of Mississippi, Louisiana and parts of Tennessee and Alabama. So far agencies have been established at New Orleans in charge of F. Codman Ford, and at Jackson, Miss.—Morrison Bros. Other agencies are now being established. The officers of the company are Richard Hanlon, president and treasurer; Edward Hely, vice-president; Richard Hanlon, Jr., secretary. All the officers are of St. Louis, and St. Louis money is exclusively represented in the enterprise. ALBERT PHENIX.

### IN BIRMINGHAM IRON.

#### Little Change in Recent Conditions Has Occurred.

[Special Cor. Manufacturers' Record.]  
Birmingham, Ala., March 22.

Since last report of the iron market there has been little change in the situation. As is always the case, there were plenty of rumors afloat. Some resale iron was placed on the market, and as that rarely commands market value, it tended to a weakening of the market. Sales were reported as low as \$11 for No. 2 foundry for delivery the first half of the year. Not a single sale was reported through regular channels below the basis of \$12 for No. 2 foundry. Yet the assertion is made of sales as low as \$11. These low sales may be denominated chance sales. They do not represent the market. There has been no pressure to increase sales on the part of the sellers, and the inquiry (which has increased) evinces no anxiety to stock up. One large interest reported its total sales for the week at 175 tons, and another reported its sales at 250 tons. That tells very plainly the dullness of the market and the poor demand. Practically there is not a single one of our large interests in the market except in a perfunctory way.

Interest is manifested in the probable action of Congress on the iron tariff, as the idea is firmly fixed in the minds of the furnace operators here that a reduction of the duty on iron means the lowering of wages to the mine workers as well as to the furnace operatives. Comparing the cost of foreign iron laid down at Atlantic ports with what the Birmingham iron will cost for the same delivery, and the advantage is with the foreign article. In many cases the competition we would encounter would, frankly speaking, put this section of the iron world out of business. To counteract the harm which such action

would inflict upon our production of iron there is no concerted action. Organized opposition may be instituted after the injury has been inflicted. There is no sign of any intention here on that line as yet.

The scrap-iron market is without interest, its principal feature being the absence of demand. Quotations are omitted, as there is nothing going on beyond a little local trading to fill up some lapses in stocks.

There is yet a good demand for cast-iron pipe, and specifications are being considered for further lots on which lettings will be awarded in the near future. Prices are firmly maintained. The outlook for an active business has not changed. There are some lettings that will probably be awarded before the close of the month.

The Alice furnace has been taken out of blast for repairs. As soon as it has been repaired it will be again placed in commission.

The report that the steel mill at Ensley will be shut down about the first of the month has excited a good deal of discussion as to the reason for such action. The step has been under consideration for several weeks. It simply means that unless orders come in making the new business sufficient in volume to employ the mill there is nothing for the mill to do but to accept the situation and close down. There is probably enough business already secured to employ the mill the first half of the coming month. When that is exhausted the continuous running of the mill must depend upon fresh orders. It is anticipated that the shutdown will be only temporary, and it is yet possible that it may not occur. It depends, as previously stated above, upon the conditions of the orders secured. If it is possible to avoid shutting down, or if it is possible to delay it, it will be done. The impression has been that the mill had orders booked of sufficient volume to keep it employed for several months. If it closes down it will, of course, have a bad effect, as it will be a confession of business depression that the majority of us thought had been past. All that can be done is to accept the situation and be prepared for the turn which, to the optimistic element, can be delayed but a short time longer.

In strong contrast to the action concerning the steel mill comes the news to us that notice has been posted at the Bessemer rolling mill to the effect that the mill would resume operations today in all departments. The bar mill and the plate mill will run double turns, while the guide mill will run single turn. The force employed will number about 400 men. No statement has been made as to the length of time it is anticipated the mill will be in operation. The mill has been for some time past receiving shipments of supplies from the Ensley mill. So if the steel mill closes down it need not hamper the rolling mill in its business for the time being, anyway.

At a meeting of the interested bodies the past week the act of consolidating the various commercial organizations into one body for the purpose of advancing the interests of Birmingham was completed, and one name now indicates the success of the move. Into the name of the Chamber of Commerce all are now merged. By the concentration of effort it is anticipated greater good can be accomplished and greater success attained.

The Birmingham Railway, Light & Power Co. has published a card to the effect that it has sold and is serving 5000 gas stoves. These stoves were purchased in Detroit and St. Louis. Freight was paid to the manufacturing points and back again to the initial point. This item represents an investment of \$75,000, which

ought to have been made in the district. The annual orders of the company are about 600 stoves, which they now say they will divert to any plant here that can fill their requirements, and in addition to that will lend their influence to securing the patronage of every gas company doing business in the South. This is given as evidence of the feeling of helpfulness that is being born of the new spirit. The card concludes with: "This proposition is open till the thing is done."

The organization of a new bank is under way, and it will commence operations as soon as the necessary preliminaries are completed. The capital stock is to be \$200,000, which has all been subscribed.

The stockholders of the Homestead Trust Co. have resolved to increase the capital stock from \$25,000 to \$100,000.

Our industries have been added to with the establishment of a new plant for the manufacture of the better qualities of iron beds and steel office fixtures. About 20 iron beds will be turned out daily. Birmingham capital and Birmingham mechanics are at the head of the enterprise.

St. John's Methodist Church, located on 20th street, is making arrangements for the erection of a handsome house of worship to be erected on the site which it has occupied so long. The cost, it is estimated, will be from \$60,000 to \$75,000.

A lime and plaster company is being organized, and as soon as preliminaries are arranged operations will be commenced. It will probably be located in North Birmingham, and the name of the corporation will be the Birmingham Lime & Plaster Co. The authorized capital stock is \$81,000. C. B. Rogers is president and J. H. Berry is secretary and treasurer.

Plans and specifications for a new cold-storage plant have been prepared for the Armour Company, the building to be on First avenue, between 23d and 24th streets. The estimated cost is over \$50,000.

The finishing touches to the Brown-Marx skyscraper are being put on, and it is anticipated that by the first of the coming month it will be turned over to the agents with very nearly all the offices rented. Think of one building composed of 1000 offices, all filled up! J. M. K.

### LOUISIANA DRAINAGE WORK.

#### Child's Play as Compared With That in Illinois.

[Special Cor. Manufacturers' Record.]  
New Orleans, La., March 20.

An interested and surprised investigator of reclamation work in Louisiana is Mr. A. H. Bell, engineer, of Bloomington, Ill., who has spent several days of this week in La Fourche and St. Charles parishes, where he saw various stages of the work from the time the dredgeboat starts in to cut a canal through the undrained prairies to the completely leveed, canaled and reclaimed lands under high cultivation. Mr. Bell came as the guest of Mr. G. A. McWilliams of Walnut, Ill., who has in hand the reclamation of about 13,000 acres in St. Charles parish, near Paradis. In addition to going over this work, Mr. Bell visited the fully reclaimed lands owned by Mr. Edward Wisner at Raceland, where a demonstration is made of the ease with which the reclamation may be done and of the remarkable fertility of the soil in cultivation. As a result of what he saw, and in view of the simplicity and ease of the drainage proposition and the high character of the land when drained, Mr. Bell expressed much surprise that the development is no greater than it is.

The visitor speaks with the authority of one who has had long experience in work of the kind. He is an engineer of 27 years' standing, and although having

been city engineer of Bloomington and having at other times engaged in municipal engineering work, he has been mostly devoting his time to drainage undertakings. He has been connected as engineer with 22 drainage works in Illinois, Missouri, Mississippi and to some extent elsewhere, so that he has ample data for a basis of comparison between conditions in Louisiana and elsewhere.

"This is mere child's play," is Mr. Bell's comment on the drainage proposition of Louisiana.

"I had never before been over the wet lands of Louisiana," Mr. Bell said, "and I was not aware of the situation here at all. For one thing, I find quite a different condition from what I expected in the way of settlement. I had an idea it was a wild, uninhabited country away from the centers of population, and I was surprised to find settlements everywhere. My wonder now is that there has been so little reclamation work done."

"After looking over the situation the reclamation of these wet lands presents itself as the simplest engineering proposition I ever ran up against. In Illinois I have now a drainage enterprise, in a district of 12,000 acres, where it is necessary to construct a levee from 9 to 14 feet high for a distance of 15 miles. This is because there is a difference between high and low water of some 20 feet. Down here, where there is no overflow to contend with, nothing but the rainfall on the land to take care of, a four-foot levee is entirely sufficient. Then the character of the soil is so favorable to levee construction. When the levee has once settled it becomes very substantial, being impervious to water and unaffected by seepage. Really, it is mere child's play to do the work here, compared with the difficulties encountered elsewhere."

"It is a wonderful proposition, and one requiring nothing but dollars and cents—and not so much of that. The proposition has entirely passed the experimental stage, as it has been demonstrated what the results will be, so that they may be counted on to a mathematical certainty. I am only surprised that a great development hasn't occurred before, where the proposition is so simple and the results so attractive. I have never seen a more ideal soil for agricultural operations."

"Under all the circumstances, it is really remarkable that these lands are not eagerly sought after, like the irrigated lands of the West have been. Let almost any sort of an irrigation proposition be announced, and people will fall over each other in the rush to buy the lands at somewhere around \$100 an acre, and more in many cases, and I can't see how they are to be compared with the reclaimed lands of Louisiana. Here there is never any danger of drouth or lack of water supply, and there is no soil on earth more fertile and productive. The cost of pumping following a heavy rainfall is 30 to 50 cents an acre a year, whereas the price of water on irrigated land runs from \$2 to \$12 an acre, and this heavy tax is perpetual. Moreover, irrigation is a very delicate operation, and eternal vigilance is required to see that the water supply is neither too great nor too scant, but just exactly right."

"The proximity of these lands to New Orleans and their nearness to all the big markets of the eastern half of the continent is also an important factor in determining their desirability. Altogether, I am at a loss to understand why there has not been a great demand for Louisiana lands."

"One obstacle, I presume, is the very erroneous but quite common impression that the wet lands are malarial and 'unhealthy.' Why, the entire crew of Mr. McWilliams' dredgeboat, all of them Northerners, have been at work in the

ditch for a year without any sickness whatever, and the housekeeper on the houseboat has gained in flesh decidedly. I talked with all the natives I came across, and they all looked and testified to having excellent health and didn't know the meaning of ague.

"I have been very much impressed with the situation as I have found it, and believe an early development of reclamation work on an extensive scale is inevitable. Every feature of the situation is interesting, including the picturesqueness of the landscape. The fine live oaks and magnolias which everywhere abound, the many stately homes and the distinctive character of the architecture all give a charm to the country which takes hold of the visitor from the North, and especially is it pleasant to see the trees in full leaf and the flowers in bloom and to hear the songs of the birds at a time when our North is icebound and covered with snow."

ALBERT PHENIS.

### IN CENTRAL OKLAHOMA.

#### Rapid Growth of Shawnee in Fourteen Years.

Shawnee, Okla., March 18.

[Special Cor. Manufacturers' Record.]

Shawnee is in central Oklahoma, on the eastern border of what was known as Oklahoma Territory, and only eight miles from the western line of the great fertile but undeveloped country known before Statehood as the Indian Territory. Shawnee has grown from a log cabin in a wilderness of sturdy oak and hickory trees on July 4, 1895, to a splendid young commercial giant on July 4, 1908 of 20,000 population. This steady, vigorous growth was made possible only by the great natural resources of the surrounding country. The city is well governed. It operates its own water plant. Eight miles of its streets are paved with brick and asphalt. A sewer system with 21 miles of main sewer, costing \$200,000, has just been completed, touching every section of the city, while the natural drainage is excellent. Of the street-car service there are 12 miles and a half of track, which radiates in all directions. The Shawnee-Tecumseh Traction Co.'s interurban road connects Tecumseh, a town of 2500 population, six miles to the south, and a 20-minute car service is maintained. This short piece of interurban road was the first built in Oklahoma.

The city has direct railway connections with all points of Oklahoma and the great commercial centers North, South and West. The Rock Island Railway, the Atchison, Topeka & Santa Fe Railway and the Missouri, Kansas & Texas Railway are all here, and have been dominating factors in the wonderful growth of Shawnee. A railroad, already surveyed, from Shawnee to Muskogee, a distance of 75 miles, will give this city a fine outlet through a rich section of the State. There are 27 factories in Shawnee, with 1905 employees, and they are paid in wages annually \$1,826,000.

The city has five well-managed banking institutions, the resources of which are \$3,043,192.09; deposits, \$2,746,928.33. Shawnee offers rare opportunities for manufacturing, jobbing and other mercantile pursuits, such as free factory sites, natural gas, cheap electric power. Labor conditions are favorable. The city is in the center of 2,000,000 consuming population, which can easily be reached from Shawnee. Great beds of fine coal within 50 miles can be reached by three lines of competing railroads, and other developed fields will soon be brought in touch with Shawnee by railroads now being built. Oil and natural gas are piped in from Sapulpa for fuel purposes.

The city has just voted bonds for a

large convention hall to cost \$50,000; \$85,000 has been raised for the building of a high school, and \$40,000 for the erection of two ward schools, besides \$50,000 for civic improvement, and a new Baptist church to cost \$35,000. Over \$40,000 is invested in machinery for handling cotton and its by-products. There was marketed at Shawnee over 12,500 bales of "street cotton;" that is, cotton raised in the vicinity of Shawnee and hauled to this market direct from the farms. The compresses handled during the season of 1907 a total of 65,000 bales.

Mr. J. F. Cooley, the assistant secretary of the Chamber of Commerce, says:

"On February 10 we became the county-seat of Pottawatomie county on account of our growth and central location. With an expenditure of \$750,000 last year for permanent municipal improvement, 16 miles of asphalt and brick-paved streets, cheap electric power for all kinds of factories, unlimited raw material of easy access for many lines of manufacturing, asphalt, gypsum, Portland cement, building stone, sand of the finest grade, fire-clay, salt, lead, zinc and iron within our own gates, Shawnee has boundless opportunities."

ALEXANDER HELPER.

#### For Raleigh's Progress.

[Special Cor. Manufacturers' Record.]

Raleigh, N. C., March 20.

Eighteen miles of the Tennessee Southern Railway have been completed from Bushnell, in the high mountain region of this State, down the Tennessee River toward Knoxville. The construction is of a very high type, and the road will be a very important one, notably as a developer of vast tracts of hardwood timber.

The State will on April 2 award a contract for a building to cost some \$30,000 at the Agricultural and Mechanical College here, this to be a three-story brick and concrete structure for use as a dormitory, and to accommodate 175 students.

Workmen are putting the finishing touches on the power transmission line between Buckhorn Falls and Raleigh. The Legislature gave authority for the erection of the steel masts across the State lands, and today the workmen reached a point three miles from Raleigh with the wires. Manager H. H. Carr says the power would be on here by April 1. Practically every mill in Raleigh takes this power. Three new hosiery mills have been established here, and a fourth one is now being constructed. These are small, and a central mill established some time is taking their product. This is the Martin Mill, the capacity of which is about to be trebled. All its old machinery is being replaced by new of the highest type. For it the Raleigh Hosiery Mill is spinning the finest thread it has ever made.

The Montgomery Lumber Co. is building a railroad to tap its 44,000 acres of splendid timber land. The construction of the road is good, and Tar River is now being bridged.

#### The Sagax Wood Co.

The Sagax Wood Co. of Baltimore will build a larger plant for the manufacture of its fireproof imitation wood in form of firedoors, fire-shutters, partition and corridor doors, partition tile, etc., daily output to be 25 tons. It will erect (of its own materials) three fireproof buildings—50x200, 20x35 and 25x40 feet—at a cost of \$20,000, and install machinery at a cost of \$30,000. This equipment will include 300-horse-power plant, pulverizer, mixers, driers, hollow-tile press, etc., and proposals are invited on the power plant. The company's architect in charge is A. Henry Krone, and its general manager is H. G. Perring; offices at 106 Dover street, Baltimore, Md.

### TO DEEPEN A WATERWAY.

#### Plans for the Sabine-Neches Route in Texas.

Mr. T. W. Larkin, secretary of the Beaumont Chamber of Commerce, writes to the MANUFACTURERS' RECORD:

"The attention of progressive people throughout the country has been directed to this section of Texas through the projected improvement of the Sabine-Neches canal and the Sabine and Neches rivers so as to enable oceangoing vessels to ply direct to Orange and Beaumont, which offers substantial evidence of the pluck and progressiveness of the people. The great possibilities of making Orange and Beaumont important inland ports have long been realized by some of the foremost and far-sighted citizens. As a result of an effort in this direction an appropriation was secured to dig a canal along the west side of Sabine Lake and connecting the mouths of the Sabine and Neches rivers with the Gulf. This canal is now 100 feet wide and about 10 feet deep, permitting only light-draft vessels to pass through, but it has proven sufficient to suggest the great possibilities offered for the opening of another important artery of commerce and the development of the many and varied resources of this section.

"Being unable to immediately secure a sufficient appropriation from the Federal Government, and realizing the danger of further delay, it was proposed that the people provide the funds for the improvements immediately necessary, and plans were quickly formulated. A law conveying the constitutional right to issue bonds by vote of the people has been enacted by the Texas Legislature. The National Congress has also granted the necessary permit to make the improvements proposed. The proposition will now be submitted to the people, and it is expected that the bonds will be authorized. It is estimated that \$400,000 will be sufficient to do the work."

#### The Birmingham News.

Upon the occasion of its twenty-first anniversary the Birmingham (Ala.) News presented last week a special edition, reviewing in a general way the industrial, commercial, educational, municipal, religious and social conditions of the city and district. Its purpose was to contrast these conditions as they exist today with conditions as they were when the News was founded, and in this way give a more forcible impression of the past growth and present activity of that section. The publication is comprehensive in its scope, and contains much descriptive data, with numerous photographic views.

#### Opportunities at Childress, Texas.

W. T. McNulty, secretary of Board of Trade, Childress, Texas, writes the MANUFACTURERS' RECORD as follows:

"A great opportunity is offered here for the establishment of a canning factory and shirt and overall factory. A city of over 6000 people and the main shops of the Fort Worth & Denver City Railway, employing nearly 1000 men at this point, which means a good home market for the product of factories of this kind. The cotton-oil people have their eyes on Childress, and within the year a mill will be built. We need these industries, and will do the right thing to get them."

#### Gaffney.

The Board of Trade of Gaffney, S. C., is circulating a folder telling of the opportunities for industries in that city, with special reference to electric power from a plant already developing 10,000 horse-power and another plant which will develop 20,000 horse-power. The folder

says that another railroad, a street-car line, a carriage and wagon factory, a cotton bagging factory, a cotton-waste mill, overall and pants factory, a shoe factory, a tannery, a soap factory and a furniture factory would pay at Gaffney.

#### City Wants Ice Plant.

The city of Altavista, Va., located at the junction of the Southern and Virginian railways, needs an ice plant, not only to supply the city, but a large demand that has been created by the building of the Virginian Railway, as there is no plant on that railroad between Roanoke and Norfolk, a distance of 250 miles.

A free site will be afforded, located on an industrial track where both railroads have access and will furnish service without switching charges. For information address Lane & Harris, Altavista, Va.

#### Columbia Gas & Electric Co.

The Columbia Gas & Electric Co. informs the MANUFACTURERS' RECORD that it will build another gas-pipe line in West Virginia, extending present line eastward, and contemplates constructing an additional line from West Virginia to Cleveland, Ohio. Details are being arranged, and about \$4,000,000 will be expended. The company's offices are in the First National Bank Building, Cincinnati, Ohio.

#### Sugar-Mill Location Offered.

Manufacturers who may need a site for a sugar mill are invited to investigate the advantages at McAllen, in the lower Rio Grande Valley, Texas. The Hidalgo Canal Co. will have from its present planting seed cane for 3000 acres next fall, and can furnish particulars to inquirers. It states that grinding begins on October 1 and continues to March 1, with cane averaging 40 tons and over per acre.

The MacArthur Bros. Company of New York city, which has the general contract for building the extension of the Carolina, Clinchfield & Ohio Railway from Bostic, N. C., to Spartanburg, S. C., has just been given a contract for the Gilmore & Pittsburg Railroad from Armstead, Mont., to Salmon City, Idaho, about 120 miles, with a branch of 20 miles from Junction to Gilmore. The headquarters of the railroad are at Pittsburg, Pa.

It is reported that in the past two weeks homeseekers have bought at least 50,000 acres of land in Jefferson and Chambers counties, Texas.

A series of articles dealing with the vast resources in the Big Sandy Valley and their development is being published in the Herald of Pikeville, Ky.

Maryland in Prose and Poetry. Compiled by Edward M. Noble and Edward T. Tubbs. Publisher, Lehman Printing Co., Baltimore.

The general observance by the public schools of the State of "Maryland Day" has created a demand for material for recitations and readings bearing upon the history of the State. Response to this demand has been admirably made by the compilers of "Maryland in Prose and Poetry," and one is amazed at the wealth of literary material which has thus been uncovered in judicious and well-balanced selections, though a serious mistake was made in including in the collection "Barbara Frietchie," that venomous metrical slander by John Greenleaf Whittier, which should be eliminated from subsequent editions of the work. Designed primarily for the use of teachers in the public schools, it is hoped that the volume in revised form may have a far wider circulation.



## FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

## Chinese Want Lighting Equipment.

C. C. MacKee Company, No. 4 Queen's Road, Central, Hongkong, China, writes the MANUFACTURERS' RECORD:

"We have inquiries here from customers as to feasibility of making a good search-light to burn kerosene, gasoline, carbide or some stuff that can be easily and economically handled. We are at a loss what to recommend, and would be glad for you to put us in line with firms who could help. It is a question involving a supply of about 500 lights of the sort found suitable. The main features are a not too expensive plant to start with, a light to carry three to five miles; to turn completely around; it must not get out of order easily, and must be easily fixed up if it does get wrong; each light must have its own plant and be complete. The lamps are wanted by Chinese in the interior of China to be fixed on the top of the 'Pawnbroker Godowns' (warehouses) in the small villages, which are liable to attack by pirates. These Godowns are the highest buildings, and the Chinese wish to have the lights ready to turn on any moment. The Chinese would prefer kerosene if possible, but what we want is to obtain a plant that will not be prohibitive in the way of price and will give a really good light without easily getting out of order."

## From an English Contractor.

Frederick Thorpe, contractor, Bromley Cross, near Bolton, England, writes the MANUFACTURERS' RECORD:

"Owing to the abnormal slackness of trade in railroad, reservoir, etc., contracting, I am considering the question of transferring my business to a newer country, and if this matter interests you in any way I would be glad to have your opinion about a location. I am capable of carrying out any civil engineering contract up to about \$250,000. I should like to know more about the system of the bonding of contractors for contracts by bonding companies and what it costs approximately; detailed particulars of this would be appreciated from one of your advertisers."

## Meal, Bran, Grain, Etc.

Leo Levor, Brodschangen 19-21, Hamburg, Germany, writes the MANUFACTURERS' RECORD:

"I herewith beg to ask you whether you can give me some addresses of exporters and mills who are dealing in all kinds of feeding stuffs, flour, etc. I have handled for 20 years cottonseed meal, rice meal, barley bran, cornmeal, malt sprouts, dried brewers' grains, etc., and I should be very glad if you can procure me some large concerns exporting such articles. Naturally, I am also prepared to do business in other goods exported from America, as I have the very best connections on the Continent."

## A Letter from Italy.

Jose Molinari, 3 via F. Bellotti, Milan, Italy, writes the MANUFACTURERS' RECORD:

"I want to have representations of houses of your country of the metallurgical branch and derivatives, oils, ores, etc., and whatever is produced in North America."

## For Representation in Australia.

Richard Stephens, 225 West 23d street, New York, writes the MANUFACTURERS' RECORD:

"My knowledge of trade matters in Aus-

tralia is extensive. I am a newspaper man, and have traveled a great deal in the different States of the Antipodes. I am conversant with the conditions of mining, farming and manufacturing in general, and am in a position to conduct the preliminary work for the establishment of an agency for any American firm, but I am not desirous of taking the agency myself."

## American Products for Canada.

Hugh J. Duffy, Roberts Supply Co., 3 King street east, Toronto, Canada, writes the MANUFACTURERS' RECORD:

"We are interested in making arrangements to represent American products in Canada, particularly machinery used in the building trades, although we do not confine ourselves to that line. We are manufacturers' agents, and any American product that could be handled in Canada to advantage would be of interest to us."

## Canning and Starch Machinery.

E. W. Halstead, secretary Herradura Fruit and Vegetables Growers' Association, Herradura, Cuba, writes the MANUFACTURERS' RECORD:

"Members of our association contemplate erecting canning factory and starch (cassava) plant, and wish to correspond with manufacturers of canning and starch-making machinery; also, canmaking machinery and dealers in tinplate for cans."

## Railway Equipment for Germany.

H. Zornow, Hochallee 115, Hamburg 37, Germany, writes the MANUFACTURERS' RECORD:

"I am in the trade for railway plant, especially railway equipment, railway supplies and railway specialties for railway road, and also for rolling stock. Price-lists with best trade conditions are desirable. Please inform American manufacturers to send their literature."

## From Mr. Demirian of Turkey.

M. N. Demirian, 43-45 White street, New York city, or Aintab, Turkey, writes the MANUFACTURERS' RECORD:

"From today no letters and catalogues will be received at New York address. If any manufacturer wants to communicate with me, please address it to Aintab, Turkey, as I expect to leave in a few days."

## India Needs Sugar Machinery.

H. Bevis & Co., P. O. Box 29, Cawnpore, India, writes the MANUFACTURERS' RECORD:

"We write again to enlist your aid as regards machinery for the manufacture of sugar, in which we have lately become interested."

## The Cotton Movement.

In his report for March 19 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 200 days of the present season was 11,635,169 bales, an increase of 1,969,499 bales over the same period last season. The exports were 6,842,181 bales, an increase of 689,480 bales. The takings were, by Northern spinners, 2,123,082 bales, an increase of 836,023 bales; by Southern spinners, 1,617,264 bales, an increase of 80,022 bales.

## Contemplate Increasing Shawmut Mill.

The West Point (Ga.) Manufacturing Co. contemplates adding 10,000 spindles and 100 looms to its Shawmut Mill, which is now operating 20,000 spindles and 200 looms. This mill produces wide cotton duck and fire hose. It was completed last August, and then fully described and illustrated in the MANUFACTURERS' RECORD.

## TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

## New Erwin Mill for West Durham.

The Erwin Cotton Mills Co. of Durham, N. C., has decided to locate at West Durham its proposed additional mill announced in the MANUFACTURERS' RECORD of February 4. Its engineers, F. P. Sheldon & Sons, Providence, R. I., are now preparing the plans and specifications for the buildings, which will include the main mill, the warehouses, the power plant, the operatives' cottages, the superintendents' residences, etc. The main building will be 825 feet long, with a spinning-room 200 feet wide and a weaving-room 300 feet wide, of standard mill construction, one story high. It will be equipped with 50,000 spindles, 1500 looms and accompanying machinery for the production of gray goods—half converting and half wide sheetings. This machinery will be driven by electricity, about 3000 horse-power to be required, and 1000 operatives to be employed. Over \$1,000,000 will be expended for this addition to the Erwin facilities. The company is at present a \$4,000,000 corporation, operating 25,000 spindles and 1000 looms on denim and camlet production at West Durham, 35,000 spindles and 1000 looms on indigo blue denim production at Duke, N. C., and 48,000 spindles and 1200 looms on cotton and ticking production at Cooleemee, N. C.

## The Woodside Cotton Mills.

Some weeks ago the MANUFACTURERS' RECORD announced the decision of the Woodside Cotton Mills of Greenville, S. C., to build a 25,000-spindle addition. The company has now decided details, and states that contract for constructing the buildings has been awarded to the Fiske-Carter Construction Co. of Worcester, Mass. There will be erected an addition to the main mill, four stories high, 130x280 feet; a cotton storehouse, a church, a mercantile building and 75 cottages for operatives. This addition will be equipped with 25,000 ring spindles and 650 wide looms for the production of print cloth, and will employ about 300 operatives. It will represent an investment of about \$500,000, and is expected to be completed by December. Joseph E. Sirrine, Greenville, S. C., is the engineer in charge. The present Woodside mill is operating 45,000 ring spindles and 1100 broad looms on print-cloth production.

## The Inman Mills.

Last month the MANUFACTURERS' RECORD reported that the Inman Mills of Inman, S. C., had completed a 78x237-foot addition, but had not determined as to the machinery to be installed. James A. Chapman, president of the Inman company, now states that the building is four stories high, of regular mill construction, and that it will be equipped with 13,600 spindles and 340 looms for manufacturing sheeting. Practically all contracts have been awarded for machinery. The company's present plant has 19,424 spindles and 500 looms. Its enlargement indicates an additional investment of about \$300,000.

## The Easley Cotton Mill.

The Easley Cotton Mill, J. M. Geer, president, Easley, S. C., has not finally decided as to the addition reported in Feb-

ruary, but will probably build during the spring and summer. Its plans are to erect a four-story building, 130x249 feet, and install 25,000 spindles, 600 looms, etc., driven by electricity and producing 39-inch 68x72 4.75 cloth. Jos. E. Sirrine of Greenville, S. C., will be the engineer in charge. The company now operates 37,744 spindles, 1020 looms, etc., producing sheetings.

## The Lafayette Mill's Addition.

The Lafayette (Ga.) Cotton Mill has awarded contract to Adams & Schneider, 120½ East 8th street, Chattanooga, Tenn., for the construction of the slasher-room recently announced. This addition will be of brick, one story high, with a composition roof, and will cost \$3000. It will be equipped with 2000 spindles, 40 looms and other machinery. The company is now operating 5000 spindles and 160 looms on sheeting and drills.

## The Locke Mills Addition.

The Locke Cotton Mills Co. of Concord, N. C., has awarded contract, as reported last week, for rebuilding Odell mill No. 4. It has also ordered 12,000 spindles, with accompanying machinery, optioned 12,000 spindles additional, and plans to increase ultimately to 45,000 spindles. R. L. McAllister of Mt. Pleasant, N. C., and Ed. M. Misenheimer of Concord are the contractors for the building.

## The Lois Hosiery Mill.

W. H. Ellington of Chapel Hill, N. C., will establish the Lois Hosiery Mill. He will install a 10-horse-power gasoline engine and 27 knitting machines, which equipment has been purchased and will be increased soon. Daily output will be 100 dozen pairs of hose, and 20 persons will be employed.

## Will Add 300 Looms.

The Cannon Manufacturing Co., Kannapolis, N. C., will install 300 looms in its addition recently reported to be erected. This company now operates 30,000 ring spindles and 900 looms, manufacturing towels and crashes. Stuart W. Cramer of Charlotte, N. C., is the engineer in charge of the addition.

## Williams &amp; Bros.' Woolen Mill.

C. A. Williams & Bros. of Winchester, Va., will build an addition to their woolen mill, and have not as yet awarded any contracts. They were reported last month as to double the capacity of their woolen cheviot mill, which now has 400 spindles, eight looms, etc.

## A \$20,000 Hosiery Co.

The Webb-Lynch Hosiery Co. of St. Louis, Mo., has been incorporated with a capital stock of \$20,000 by Wm. B. Webb, Daniel M. Flournoy and Merritt M. Hayes.

## Textile Notes.

Buel B. Reid of Jonesville, S. C., is reported as to establish a hosiery mill.

It is rumored that W. A. Ellington of Chapel Hill, N. C., will establish a hosiery knitting mill.

The High Point (N. C.) Hosiery Mills will build a dyehouse addition, of brick, one story high, 50x100 feet.

It is reported the Martin Hosiery Mill of Raleigh, N. C., will triple its present capacity. The company is now operating 85 knitting machines, etc.

It is reported the Hamilton Carhartt Cotton Mills of Rock Hill, S. C., will build an addition 140x140 feet, to be equipped with 400 looms. The company now operates 7488 ring spindles and 204 narrow looms, producing denims.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### TEXAS & PACIFIC'S YEAR.

#### Rapid Development in the Western Part of the Lone Star State.

The annual report of the Texas & Pacific Railway Co. for the year ended December 31, 1908, shows transportation receipts, \$13,917,314; transportation expenses, \$10,288,807; net revenues from operation, \$3,628,506. In 1907 these figures were, respectively, \$16,671,667, \$11,577,939 and \$5,093,727, but as compared with 1906 the decrease in transportation receipts during 1908 was about \$1,000,000 and the drop in net revenues was less than \$1,500,000. The figures as compared with 1907 showed that the decrease in gross was about 16½ per cent., and in net nearly 29 per cent. It is said that the floods last year in Texas and Louisiana affected the company, at a low estimate, to the extent of \$350,000 in earnings and \$250,000 in damage to its line.

The freight depot of Fort Worth, Texas, which was burned early last year, has been replaced by a new fireproof structure, the warehouse having concrete floors, with concrete roof on a steel frame, and concrete partitions, with automatic fireproof doors.

Concerning development along the Rio Grande division, which extends from Fort Worth to El Paso, Texas, the report says that the reorganization committee of 20 years ago considered that part of the line of very questionable value to the stockholders. It traversed long stretches of arid plain hundreds of miles in extent, very sparsely populated and mainly used as a range for cattle. Water had to be transported long distances for the locomotives, and it was deemed doubtful if the section would ever become attractive to farmers. Every effort was made to overcome its disadvantages, and since 1902 development has been surprisingly rapid both in population and in the amount of territory brought under cultivation. The success in raising cotton, it is said, has been such as to justify the belief that in a short time the cotton yield in this territory will almost equal that now produced in the eastern section of the State.

The company owns 61,278 acres of land in Texas, of which over 59,000 acres are in the extreme western end of the State, in Brewster and Presidio counties. More than 1400 acres are in Wilbarger county, and over 300 are in small tracts in different counties along the line. It is stated that the rapidity with which much of the territory along the Rio Grande division is being occupied and the success attained in the growth of farm crops, particularly cotton, is a matter of congratulation. Methods of farming, such as the so-called Campbell, or dry system, have been adopted with gratifying results. It is further said that all the towns on this division, especially west of Baird, are growing with remarkable rapidity, and new enterprises to meet the demands of this extraordinary growth, such as ice factories, oil mills, cotton gins, light plants, etc., are constantly being built. The increase in the number of settlers in this territory continues, promising a large increase in planted acreage and continuous increase in tonnage to be handled during the coming year. During the past year 1049 cars of immigrant outfits were moved to this division from Eastern Texas and from other States.

On the Louisiana division the report says that there continues to be a large immigration of desirable people, and an increased acreage is brought into cultivation generally over the line. Of the East-

ern division it is said that extensive improvements were made at both Dallas and Fort Worth, as well as at Marshall, Texas.

### THE VIRGINIAN RAILROAD.

#### Its Formal Opening to Be Extensively Celebrated at Norfolk.

Extensive preparations are being made at Norfolk, Va., to celebrate on Friday, April 2, the formal opening of the Virginian Railway, recently completed between that city and Deepwater, W. Va., 442 miles. Several committees have been appointed to take charge of the different features of the celebration, and the entire business community is strongly represented thereon. Mr. Henry H. Rogers of New York, who built the line, is to be the guest of honor at the celebration. A number of prominent New York railway men are also expected. A program for the entertainment of the invited guests has been arranged.

The entertainment committee has been informed that Mr. Rogers will be accompanied by the following gentlemen: Samuel L. Clemens (Mark Twain), H. H. Rogers, Jr., Urban H. Broughton, James M. Beck, Melville E. Stone, general manager of the Associated Press; Senator Thomas S. Martin and Senator John W. Daniel of Virginia, and Frank O. Briggs.

In addition to the foregoing, there will be present the heads of the transportation lines having terminals in Norfolk, and some of the other business associates of Mr. Rogers.

The committee making arrangements includes John Blair McAfee, Fergus Reid, H. T. Campbell, T. S. Southgate, Hugh M. Kerr and W. T. Anderson.

### New Equipment, Rails, Etc.

The St. Tammany & New Orleans Railway & Ferry Co. of Covington, La., has, according to a press report, received and put in service another motor car.

The Nashville & Huntsville Railway Co., which proposes to build a line from Nashville, Tenn., to Huntsville, Ala., has, it is reported, ordered several hundred tons of rails from the Tennessee Coal, Iron & Railroad Co.

Reported that the Austin Springs Railway of Johnson City, Tenn., a proposed line, wishes to purchase a gasoline motor car, a freight car and several trailers. J. B. Cox of Johnson City may be addressed.

The Augusta Railway & Electric Co. of Augusta, Ga., it is reported, contemplates buying cars.

The Florida & East Coast Railway will, it is reported, buy about 3000 tons of bridge steel.

Among the rail orders reported placed are 1400 tons for the New Orleans & Northeastern and 2000 tons for the Marshall & East Texas.

The Harriman lines, it is reported, contemplate buying 12,000 tons of rails.

The J. F. Donahoo Company, Birmingham, Ala., is reported in the market for steel rails, electric interurban cars, freight cars, locomotives and some other railroad equipment.

The New Orleans Great Northern Railway is reported to be considering a proposition to purchase six motor cars for use on a branch.

The Southern Railway, it is reported, is getting prices on 114 passenger cars.

The Norfolk & Western Railway will, it is reported, build 300 more all-steel coal hopper cars at its Roanoke works.

The Santa Fe system, it is reported, has ordered 5000 tons of tieplates from the Illinois Steel Co.

The Nashville, Chattanooga & St. Louis Railway is reported to have ordered 8000 tons of rails from the Ensley plant of the Tennessee Coal, Iron & Railroad Co.

Reported that the Pennsylvania Rail-

road has ordered 400 steel sleeping-cars from the Pullman Company.

The Acme, Red River & Northern Railway, which recently changed its name to the Quanah, Acme & Pacific Railway, is reported to have purchased one locomotive from the Baldwin Works.

### Valdosta to Moultrie.

President Frank Roberts of the Valdosta, Moultrie & Western Railroad Co., Valdosta, Ga., writes the MANUFACTURERS' RECORD that the contract for ties has been let to Roberts & Cates of Valdosta, while the contract for the bridge over Little River has been awarded to Chambliss Bros. of Tampa, Fla. The company is now in the market for 45 miles of 60-pound steel rail and other equipment necessary to complete the road. A. F. Langford has been made general manager of all construction.

The railroad company was organized on March 15 with capital stock of \$100,000. The directors elected are Frank Roberts, president; W. B. Conoley, vice-president; A. F. Langford, general manager; B. P. Jones, D. C. Ashley, J. W. West and A. L. Davis. The other officers are W. Lealand Roberts, secretary and treasurer; Gordon Tillman, chief engineer; Cranford & Wilcox, general counsel. Mr. Jones is president of the Valdosta Bank & Trust Co. Mr. Ashley is president of the First National Bank of Valdosta, and also president of the Peninsula Naval Stores Co. of Jacksonville, Fla. Mr. West is president of the West-Flynn-Harris Company of Jacksonville.

### Quanah, Acme & Pacific.

Mr. C. E. Ensminger, chief engineer of the Quanah, Acme & Pacific Railway Co., Quanah, Texas, writes the MANUFACTURERS' RECORD that the company on March 9 awarded a contract to the Pacific Construction Co., which on the same day sublet the contract to P. M. Johnston, Son & Allhands, for the construction of 42 miles of line connecting Quanah, the county-seat of Hardeman county, with Paducah, the county-seat of Cottle county. The route is through a fine farming country for the entire distance. Connections are made at Quanah with the Frisco line and the Fort Worth & Denver City Railway, and at Acme another connection is made with the latter road. The officials of the company are Sam Lazarus, president; Charles H. Sommer, first vice-president and purchasing agent; C. E. Ensminger, second vice-president, general manager and chief engineer; T. K. Hawkins, auditor, secretary, treasurer and general freight and passenger agent. Headquarters, Quanah, Texas.

### Will Replace Steam With Electricity.

Work is reported begun on the conversion of the Cassville & Western Railway (a five-mile line in Missouri connecting Cassville with Exeter) from steam to electric operation. Connection is made with the Frisco system at Exeter. The company, it is further said, intends to extend the road to Carthage, Mo., and also to Eureka Springs, Ark. Water-power on the White River is to be used to generate electricity.

### Jasper-Decatur Line Desired.

Concerning rumors that the Alabama Central Railroad might be extended to Decatur, Ala., a letter to the MANUFACTURERS' RECORD says that Decatur is 75 miles from Jasper, and is situated on the Tennessee River at a crossing of the Louisville & Nashville and the Southern railroads. The Alabama Central has completed and in operation 8 or 10 miles of line out of Jasper, and is now said to be working on another contract which will make the road 20 or 25 miles long. It

runs in the direction of Decatur, and there has been considerable talk that this will finally develop a line connecting the two cities. This, it is hoped, will be done. The region between Jasper and Decatur is rich in mineral and timber, and it is expected that it will not remain long undeveloped. The St. Louis & San Francisco, the Southern Railway and the Illinois Central Railroad also enter Jasper.

### St. Marys & Kingsland Extension.

Capt. L. Johnson, president and general manager of the St. Marys & Kingsland Railroad, St. Marys, Ga., writes the MANUFACTURERS' RECORD that the proposed extension from Kingsland westerly will cross the Jesup Short Line near Winokur, Ga., and will continue from there west to Waycross, connecting there with a road now under construction from Waycross to Nashville, Ga. From the latter point the line will run to either Sparks or Adel, and from there farther west.

Continuing, the letter says that this extension will go through a fine farming section and a splendid timber territory from St. Marys to Adel. When completed it will give not only the St. Marys & Kingsland Railroad, but all its western connections as well, an outlet at "one of the finest ports on the Atlantic coast." Captain Johnson adds to this: "It goes without saying that the Cumberland Bar is the deepest bar on the Georgia coast. Any vessel sailing the Atlantic Ocean can enter at any time."

### St. Louis, Oklahoma & Texas.

President J. M. Fleming of the St. Louis, Oklahoma & Texas Railroad, Mt. Vernon, Texas, informs the MANUFACTURERS' RECORD that an agreement has been signed to build the line, and Edwin Wilcox of New York is the financier, but the construction company is not yet organized. It will be chartered from Mt. Vernon to Sulphur Bluff, and contract will be let for about 150 miles. The country through which the line will run is mostly prairie land adapted to agriculture and stock-raising. The engineer in charge is W. J. Smith of McAlester, Okla. The directors are J. M. Fleming, H. J. Patton, J. H. Majors, G. P. Hill, M. L. Edwards, M. H. Little, S. D. Goswick, J. Matins and J. L. Rutherford of Mt. Vernon, Texas; Charles Mahaffey, James Sinclair and others of Sulphur Bluff, Texas.

### Atkinson and Parrott, Receivers.

Henry M. Atkinson and Samuel F. Parrott have been named as permanent receivers of the Atlanta, Birmingham & Atlantic Railway. Mr. Atkinson was one of the temporary receivers, but his associate under the temporary receivership, Preston S. Arkwright, resigned, and when the permanent receivership was established Mr. Parrott was named for the place. This appointment also covers the Georgia Terminal Co. and the Alabama Terminal Co., subsidiary organizations of the railroad. It is further stated that the entrance from Pelham, Ala., to Birmingham, about 19 miles, will be completed, and also some track to coal mines. Mr. Parrott was formerly vice-president of the Georgia, Florida & Southern Railway, and is now president of the Atlanta Compress Co.

### A Contract Soon to Be Let.

Concerning the Laurinburg & Southern Railroad Co., which proposes to build a line from Laurinburg, N. C., to Gibson, N. C., about 10 or 12 miles, Mr. John F. McNair of Laurinburg writes the MANUFACTURERS' RECORD saying that the company has been organized and the right of way has been practically secured, but the contract for construction is not yet let, although it will probably soon be awarded.



The country through which the line would run is mostly level, and the soil light. The directors are: President, John F. McNair; secretary and treasurer, A. A. James; N. G. Wade, John Blue, R. R. Covington, A. L. James and D. K. McRae.

#### Marshall & East Texas.

With reference to press report that the Marshall & East Texas Railway would build an extension of about 125 miles, an official letter to the MANUFACTURERS' RECORD says that an extension of 12 miles is now under construction, and surveys are being made for a further extension, but no additional contracts have yet been let. It has not been decided just how much of the additional extension will be constructed during the present year. This contemplated line is into the heavily-timbered country of the Sabine River Valley. R. J. Lockwood, Marshall, Texas, is engineer in charge. A. T. Perkins of St. Louis, Mo., is president.

#### Clintwood Electric Railway.

A letter to the MANUFACTURERS' RECORD says that prospects are bright for the early construction of an electric railway from Clintwood, Va., to the nearest point on the Carolina, Clinchfield & Ohio Railway in Dickinson county, Virginia. The electric line will be about six miles long, and it is expected that a survey will soon be made for it. Among those prominently interested in the enterprise are Senator Roland E. Chase, Judge A. A. Skeen, president of the Citizens' National Bank, and Columbus Phipps, all of Clintwood. The letter also says that a large number of citizens of the town have agreed to take stock.

#### St. Paul to Elkhorn City.

The Carolina, Clinchfield & Ohio Railway has filed incorporation articles in Kentucky, and this is supposed to mean that the company has decided to build its extension from St. Paul, Va., to Elkhorn City, Ky. Construction is now rapidly progressing between Bostic, N. C., and Spartanburg, S. C., and it will not be long before the line is completed from St. Paul, Va., all the way through to Spartanburg. The proposed extension from St. Paul to Elkhorn City will require construction as heavy as on any portion of this remarkable line.

#### Not Connected.

An officer of the Cumberland Railroad Co. writes the MANUFACTURERS' RECORD denying a press report that a preliminary survey was made for a northern extension of the Cumberland Railroad from Barboursville to Beattyville, Ky. He says that the Cumberland Railroad Co. has no connection whatever with the Cumberland Northern Railway Co., nor has any of the officials of the Cumberland Railroad Co. any connection with the latter enterprise.

The Cumberland Northern Railway Co. was recently organized.

#### To Bridge the Rio Grande.

Albert T. Perkins, vice-president of the St. Louis, Brownsville & Mexico Railway, is reported as saying that as soon as certain franchises, promised the company by the city of Brownsville, are granted construction will be started on the proposed bridge over the Rio Grande between Brownsville, Texas, and Matamoros, Mex.

B. F. Bush, president and receiver of the Western Maryland Railroad, has been elected president of the Pittsburgh Terminal Railroad & Coal Co. to succeed F. A. Delano, president of the Wabash Railroad. The Pittsburgh Terminal is a Wabash property with which the Western Maryland is related through the Gould interests.

## MINING

### In Kentucky Coal Fields.

[Special Cor. Manufacturers' Record.]

Barboursville, Ky., March 22.

The Interstate Coal Co. of Warren, Ky., one of the largest shippers on the Kentucky side, is establishing a large electrical plant at its Cumberland mines. A number of mines will be operated by the central plant. The company is producing little coal now, but expects to ship 60 cars daily when the improvements are completed. The company has established selling agencies at different cities in the South. The Edgewood Coal & Coke Co., Middlesboro, Ky., has installed an electric plant at its operations in Claiborne county, Tennessee. An increased output will be obtained.

Mr. J. H. Graham and associates of Knoxville, Tenn., have acquired 45,000 acres of timber and mineral land in Clay and Knox counties. No company has been organized. The land, which is well bunched, will be held for development. The Knox-Clay Coal Co. is another new company to acquire undeveloped coal lands in these two counties. The company is composed of Messrs. F. D. Sampson, John W. Sampson and S. A. Smith of this city. Ten thousand acres have been purchased by this company.

R. O. Campbell of Atlanta has a large acreage of mineral land in Clay county, which will be developed as soon as a railroad is built into the county.

W. S. HUDSON.

### Coal Companies' Reports.

The reports of the Consolidation Coal Co. and of its subsidiary companies, the Fairmont Coal Co. and the Somerset Coal Co., were presented at a meeting of the stockholders at the Continental Trust Building, Baltimore, last week. The production of the Consolidation Coal Co. during 1908 amounted to 2,092,016 tons of coal; the Fairmont Coal Co. to 3,270,493 tons of coal and 36,231 tons of coke, and the Somerset Coal Co. to 1,424,266 tons of coal and 1700 tons of coke. In accordance with the recommendation of the directors, to which reference was made in this column last week, the Consolidation Coal Co. authorized an increase of its capital stock from \$10,250,000 to \$20,000,000 and the distribution of a 60-per cent. stock dividend. The following officers were re-elected: C. W. Watson, president; J. H. Wheelwright, vice-president; L. L. Malone, general manager; T. K. Stuart, secretary and treasurer, and A. S. Dunham, general auditor.

### The Rosebud Fuel Co.

The Rosebud Fuel Co. of Fairmont, W. Va., has incorporated with a capital stock of \$75,000, and has purchased the coal lands and mining properties of the Rosebud Coal Co., on the Short Line division of the Baltimore & Ohio Railroad near Lumberport, in Harrison county. The property embraces about 100 acres of Pittsburgh coal, together with an electrically-equipped mine, tippie, etc., which have been in operation for several years. Officers of the company are W. E. Watson, Jr., of Fairmont, president and general manager; Friend Cox, Wheeling, vice-president, and J. F. Straight of Fairmont, secretary and treasurer. Mr. Straight, it is stated, will be in active charge of the mine.

### To Develop Coal and Oil Lands.

A new coal and oil development is about to be undertaken by the Pennoir Coal, Oil & Gas Co. of Haymarket, Va., which has incorporated with a capital stock of \$200,000. The company has secured leases on 10,000 acres of coal and oil lands, with favorable prospects for profitable develop-

ment. Among the incorporators of the company are William R. Tullos and Oscar C. Hutchinson of Haymarket, J. Wilbur Latham of Calverton, Va., and Samuel S. Simpson and F. S. Roy Smith of Washington, D. C.

### Has \$2,000,000 Capital Stock.

Among the new enterprises recently incorporated in West Virginia is the Coal River Land Co. of Charleston, with a capital stock of \$2,000,000. The company was incorporated for the purpose of acquiring interests in lands, minerals, coal and timber, mining coal and manufacturing coke, etc. Its incorporators are W. A. McCorkle, W. G. McCorkle, J. E. Chilton, W. E. Chilton and T. S. Clark.

### Mining Notes.

February shipments of coal from the Pocahontas, Tug River, Thacker, Kenova and Clinch Valley fields amounted to 752,484 tons of commercial coal and 137,411 tons of company coal.

The British steamer Irisbrook arrived at Norfolk last week from Santiago de Cuba with a cargo of 4400 tons of copper ore for reduction at the Eustis Smelting Works at West Norfolk.

The Kanawha Collieries Co. of Moundsville, W. Va., has incorporated with a capital stock of \$200,000. Its incorporators are E. D. Leach, James T. Miller, J. E. Potts, O. D. Stroder and John E. Hughes.

### UNITED STATES STEEL.

#### Annual Report Shows Great Progress on the New Plant at Gary, Ind.

The seventh annual report of the United States Steel Corporation, which covers the fiscal year ended December 31, 1908, shows gross receipts, \$482,307,840; operating charges, \$388,736,139; balance, \$93,571,700; total income, \$99,358,585; earnings for the year after the payment of interest on bonds, etc., \$91,847,710; net earnings after appropriations for various depreciation funds, \$74,882,529. In 1907 the gross earnings were \$757,014,767 and the net earnings \$133,342,930. The profit and loss surplus for 1908 is \$10,342,986.

During the year the company spent for construction and additional property \$49,422,697. At Gary, Ind., all of the construction was carried on continuously and four of the blast furnaces were completed, three of them being in operation. The first pig-iron was produced December 21, 1908. The other four blast furnaces under construction will be completed this year. Of the 56 open-hearth furnaces, one unit of 14 furnaces is completed, and several of them are in operation, the first steel having been produced February 2, 1909. Another unit of 14 furnaces is nearly completed, and a third unit of 14 furnaces will be completed this year. The rail mill is finished and in operation, the first rail having been rolled on January 24, 1909, from steel ingots supplied from other plants. The billet mill will be completed by July 1. Construction on the 160-inch plate mill, on a group of merchant mills and on the car-axle plant is well under way, the expectation being that all of these finishing mills will be completed and in operation before the end of the year. In addition to this, a number of shops have been completed, besides terminal facilities. Construction on the city of Gary is also being vigorously carried on, and all of the buildings completed are occupied.

The building inspector of Nashville, Tenn., reports the value of building operations in that city during 1908 at \$1,969,505, a decrease as compared with the preceding year of \$98,639.

The Commercial Club of Knoxville, Tenn., has started to raise \$10,000 to advertise the city's opportunities.

## LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

### The Avoyelles Cypress Plant.

The Avoyelles Cypress Co. has awarded contracts for all the machinery to equip its sawmill at Cottonport, La., and expects to begin manufacturing by July 1. This plant will represent the investment of about \$75,000 and will have a daily capacity of 60,000 feet of lumber. Its buildings are of steel construction, the steel being furnished by the American Bridge Co. of Pittsburgh. The Clark Bros. Company, Belmont, N. Y., has contract for mill machinery; the Houston, Stanwood & Gamble Company, Cincinnati, Ohio, for boilers; the Davenport Locomotive Works, Davenport, Iowa, for locomotives; the Lackawanna Steel Co., Pittsburg, for steel rails, and the Lidgerwood Manufacturing Co., New York, for skidding outfit.

### Houston's Building Record.

According to the report of the city engineer of Houston, building operations in that city for the year ended February 28 represent a valuation of \$3,515,350, an increase over the preceding year of \$1,754,000. Among the more important structures erected or begun are three 10-story buildings, costing in the aggregate \$457,000; one 11-story building, costing \$350,000; courthouse, costing \$500,000; Federal building, costing \$359,443; two freight depots, costing \$85,000; theater, costing \$125,000; lumber plant, costing \$600,000; 117 residences, costing \$471,400, and 330 cottages, costing \$252,851.

### The Marion Manufacturing Co.

The Marion Manufacturing Co. of Marion, N. C., has been incorporated with a capital stock of \$200,000 by D. D. Little of Spartanburg, S. C.; R. H. Bennett of Marion and others. Jos. E. Sirrine of Greenville, S. C., will be the engineer in charge, and contracts for the machinery have been awarded at New York and Boston.

### Bainbridge Lumber Co.

A wholesale and retail lumber plant, including a planing mill and variety shop, has been established at Bainbridge, Ga., by the Bainbridge Lumber Co. for the manufacture and sale of all kinds of rough and dressed lumber and woodwork and building material.

### Capitalized at \$1,200,000.

The Southern Carolina Lumber Co. of Marion, S. C., has incorporated with a capital stock of \$1,200,000. Its officers include C. E. Gill, president; H. F. Wunberlich, vice-president; L. D. Lide, secretary, and Charles F. Rugg, treasurer.

### Lumber Notes.

The Clyde Line steamer Katahdin cleared from Jacksonville a few days ago with a cargo of 1,000,000 feet of lumber and ties for New York. The Hirsch Lumber Co. furnished the shipment.

A dispatch from St. Louis states that the Chicago, Rock Island & Pacific and the St. Louis & San Francisco Railroad system is obtaining bids on 7,000,000 feet of timber to be used for trestle work, bridges, etc.

A dispatch from Aiken, S. C., states that T. I. Hickman, president of the Graniteville Manufacturing Co., is negotiating with the forestry department of the Government with a view to securing aid in reforesting about 2000 acres of detimbered land near Graniteville.

## MECHANICAL

## Wisconsin Engine Valve Gear.

Three accompanying views illustrate the Wisconsin Corliss releasing gear, which has made possible speeds of 150 to 175 revolutions per minute with perfect regulation, low friction loss and a low steam consumption over a long term of service. It was designed in 1900 and first

This is done by means of a split taper sleeve set up with a lock nut and held to the valve stem by friction as well as the key A, against which the split edges of the taper sleeve snugly fit. When the nut B is driven up the valve stem, key taper sleeve and drop lever are locked together as firmly as though these pieces were formed from one solid forging.

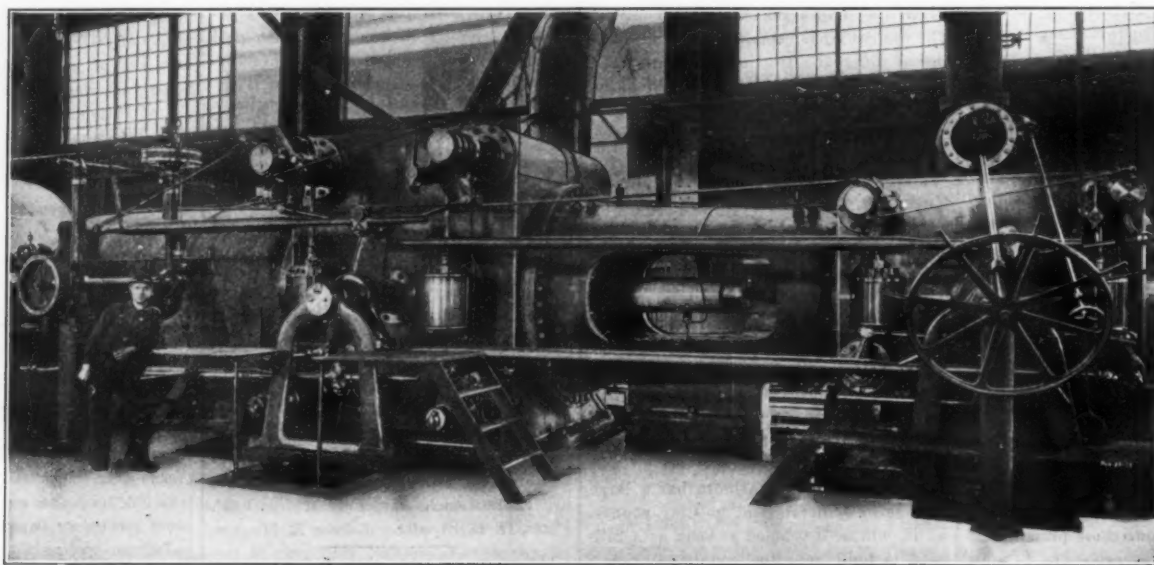
The steam lever has a long bearing on the bonnet immediately outside of the drop

The automatic closing pin is another valuable feature of this gear. It is held in the casting of the steam lever. Ordinarily it performs no service, but should the dash-pot for any reason fail to close the steam valve, the closing pin forces down the drop lever and closes the valves mechanically, thereby making it impossible for the engine to take steam on both ends of the stroke at the same time.

At the outer end of the bonnet, where

reduces the weight and consequently the inertia of the parts which must be moved by the governor to control the cutoff. The governor and gear consequently work in harmony to secure close regulation.

On "higher-speed" Corliss engines no wristplate is used on the steam valves, the motion being transmitted through straight rods direct from the eccentric. This considerably reduces the weight of the steam valve driving gear, and by the use of



VALVE GEAR SIDE OF 10,000-HORSE-POWER WISCONSIN CORLISS ENGINE.

put into service in 1901 on engines built by the Brown Corliss Engine Co. Since that time it has been applied to all the engines built by that company and its successor, the Wisconsin Engine Co., Corliss, Wis.

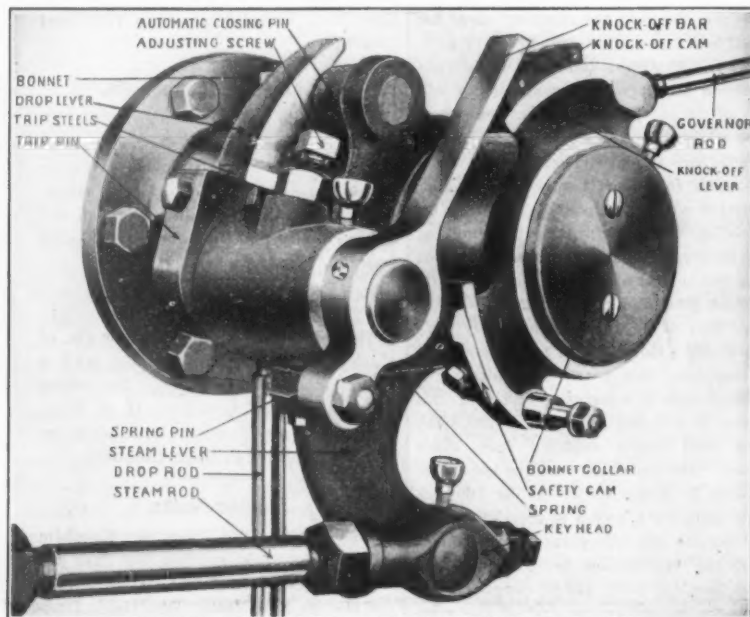
The valve gear contains many constructional features of interest. In the design it has been the endeavor to have the parts subjected to the most strain placed as near the cylinder as possible, to get the benefit of rigid support and to reduce the leverage

lever, and carries the trip pin and trip steel by which the drop lever is engaged and the steam valve is opened. The trip steels are square and interchangeable, and, in accordance with the best practice, are made so that any one of the eight sides may be used as a wearing surface. An annoyance which is frequently met with in Corliss engine operation is the wearing away or sudden breaking off of the edges of these steels, and the consequent refusal of the drop lever to pick up and open the

they are accessible for inspection, are carried the lighter parts of the gear, such as the knockoff bar, cam and lever, thus carrying out the idea of bringing the heavy work of the gear near the point of support and the lighter work farther removed; this minimizes the strain on the bonnet casting and preserves the alignment necessary for close-fitting parts, minimum friction loss and close regulation by the governor. It will be noticed in the end and side elevation of the gear that the knockoff lever, through which the governor controls the

double-ported valves, both steam and exhaust, the movement and momentum of the moving parts are decreased, making everything favorable to the high speeds previously mentioned. Ample wearing surfaces and lubrication facilities are provided to insure continuous operation at these speeds, and the gear is set so that the governor controls the cutoff from zero to seven-eighths of the stroke—a long-range valve gear.

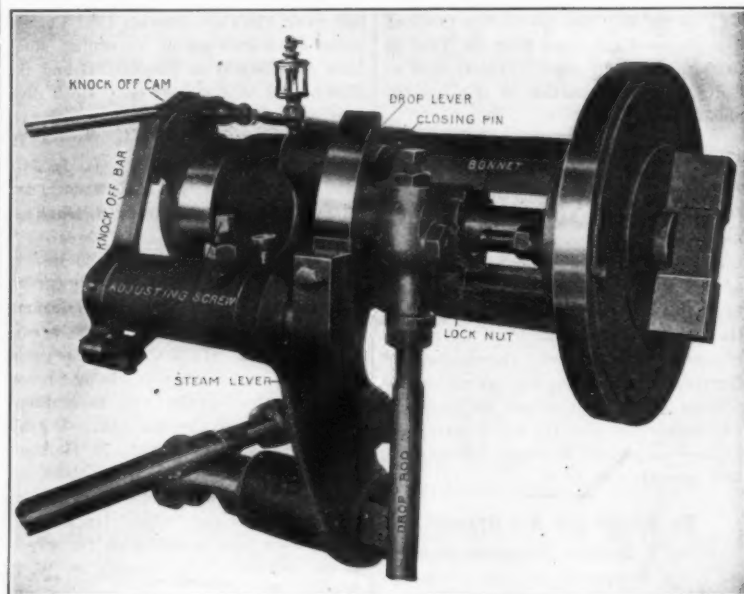
When the engine is standing idle the governor collar rests on two lugs, which



OUTSIDE VIEW WISCONSIN CORLISS ENGINE GEAR.

of the gear on the bonnet. The drop lever is inside the bonnet, rising and falling through the inside opening in the casting. Besides bringing the valve gear nearer to the cylinder, this construction offers the additional advantage of giving a substantial bearing to the valve stem on each side of the point where the turning movement is applied. One of the peculiarities of this valve gear is the method of attaching the drop lever to the valve stem.

steam valve. This is obviated in the design under consideration by an arrangement for controlling the lap of these steels while the engine is in motion. The trip pin contains a V-shaped recess, one side of which is held by a flat steel spring against the adjusting screw, also shown in the figure. Adjusting this screw varies the relative positions of the two steels, so that their lap may be increased when required without stopping the engine.



INSIDE VIEW WISCONSIN ENGINE RELEASING GEAR.

cutoff, is so placed at the outer end of the bonnet that it is absolutely free from disturbances by the other working parts. There is but one light rod connecting the governor lever with the knockoff lever on the bonnet at the crank end of the cylinder, and a light rod connecting the crank-end knockoff lever with that on the head-end bonnet; this not only dispenses with the long rod and its lever between the governor and the head-end bonnet, but greatly

prevent it from assuming its lowest, or safety, position; this enables the engine to take steam and start off in the same manner as a slide-valve engine, the engineer simply opening the throttle and paying no attention to the governor or the valve gear.

Improvements such as this promise the awakening of new interest in the Corliss engine. Vast millions of horse-power is being developed by the Corliss engine, and it is the most reliable piece of machinery in



many plants, and being the very heart of the plant's operation, it is hard to over-estimate the service rendered this country by the machine, the rotation of which might be said to be the pulse of our manufacturing industries.

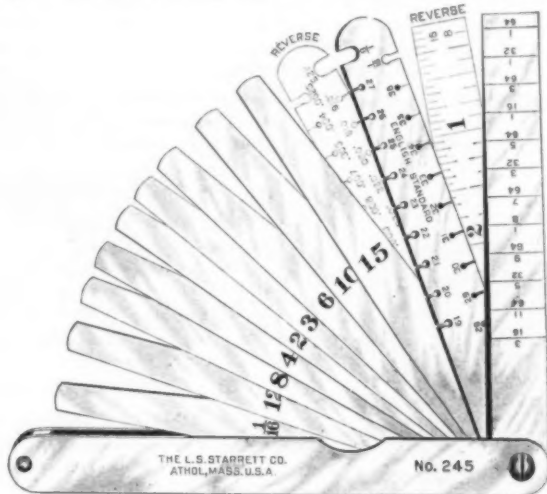
#### New L. S. Starrett Tools.

The L. S. Starrett Company of Athol, Mass., is offering the three new tools illustrated herewith. The electricians' pocket



STARRETT POCKET SCREWDRIVER.

screw driver is the same as Starrett No. 557, except that the handle is covered with hard rubber for insulation from electrical currents, and is nicely ribbed so as to insure a firm grip when in use. It has four blades of different widths, any one of which may quickly be taken from the telescope handle and inserted in the end, where it is automatically locked and firmly held for use. Any or all of the blades are carried in the handle, where by a spring pressure they are held from rattling when



STARRETT ENGINEERS' GAGE.

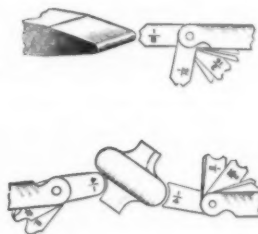
carried in the pocket, or from being lost when the cap is off. While the cap may be readily pulled off or put on, it is rigidly held from turning and frictionally held from coming off, with no screws to bind or bother.

The smaller blades may be used to make holes in wood for screws as well as to drive them home. Every electrical mechanic or operator working among electrical wires or machinery will appreciate these insulated screw drivers as a valued protection against electrical shocks.

The widths of the blades are 3-32 inch, 5-32 inch, 1/4 inch and 3/8 inch.

The engineers' taper, wire and thickness gauge is especially designed for the use of marine engineers, machinists and others desiring a set of gauges in compact form.

The taper gauge shows the thickness in 64ths to 3-16ths of an inch on one side,



STARRETT FILLET OR RADIUS GAGE.

and on the reverse side is graduated as a rule three inches of its length, reading in 8ths and 16ths of an inch.

The wire gauge, English standard, shows on one side sizes numbered from 19 to 36, with two extra slots, one 1-16 the other 1/8 of an inch, and on the reverse side shows the decimal equivalents expressed in thousandths. This gauge has also nine thickness or feeler gauge leaves, approximately four inches long, of the following thicknesses: .002, .003, .004, .006, .008, .010, .012, .015 and 1-16th of an inch, all folded within the case, which is 4 1/4 inches long, convenient to handle or to carry in the pocket.

The fillet or radius gauge is also referred to as a concave and convex gauge, and is especially adapted for use in laying out special forming tools, dies, etc., as well as for measuring fillets. The illustration shows a few of the ways in which the gauge can be used. The gauge is recommended for the use of machinists and tool-makers as well as patternmakers.

Size A has 26 leaves stamped to indicate radii by 64ths, from 1-16 inch to 1/4 inch (one-half diametric size). Diameters are from 1/8 to 1/2 inch, varying by 32ds.

Size B is made with 32 leaves stamped to indicate radii by 64ths, from 17-64 inch

other designs of jet condenser sets. The condenser cone is mounted on a tank or hot well, and is placed on the basement floor underneath the turbine and directly in line with the turbine exhaust opening. As the cooling water flows to the condenser spray nozzle under suction due to the vacuum, it is essential that the injection

bound; or, in other words, lose its suction, in which event the vacuum will be lost.

To overcome this difficulty there is provided a hot well, and the centrifugal pump suction pipe is submerged by carrying it down inside the hot well to the bottom. The water level in the hot well under normal operating conditions is carried at

about the center of the centrifugal pump. Should the quantity of cooling water be increased, the water level in the hot well will rise and result in an increased head on the centrifugal pump suction and cause the water to flow faster to the centrifugal pump. A decrease in the quantity of cooling water lowers the level and checks the quantity flowing. The centrifugal pump

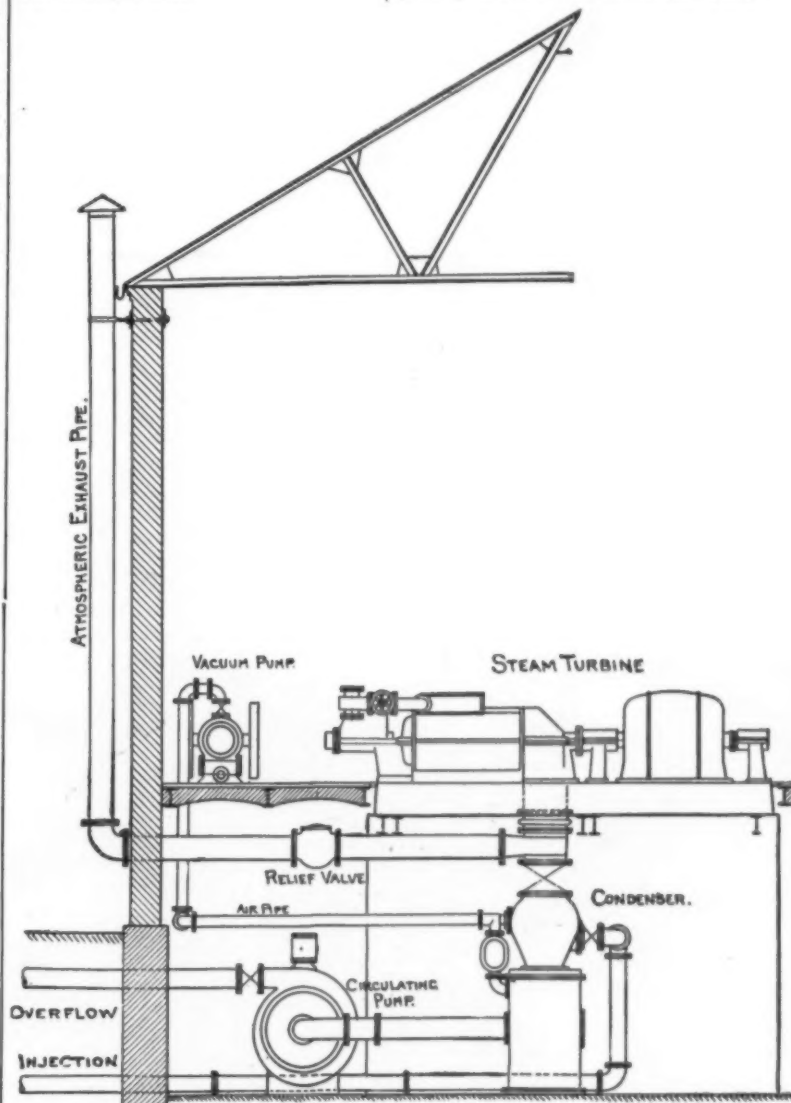


DIAGRAM SHOWING INSTALLATION OF CENTRIFUGAL JET CONDENSING APPARATUS.—PATENTED.

In an apparatus of this kind the cooling water must not flow into the condenser faster than the centrifugal pump can pump it out, or the condenser will flood. Nor, on the other hand, should the centrifugal pump pump out the condenser so much faster than the cooling water enters, for if it does this it will be pumping a mixture of water and air, and is liable to accumulate air in its impeller and become air

is therefore self-regulating, having an increased capacity as the water level in the hot well rises and a decreased capacity as it falls. The hot well provides such storage capacity that these fluctuations in level are in no way violent. A rise and fall of one foot is all that usually occurs. With 28 inches of vacuum in the condenser the water level in the hot well cannot become so low as to uncover the end of the suc-

tion pipe and allow air to get to the centrifugal pump.

The injection spray is regulated by a hand-wheel on the side of the cone, and can be quickly flushed if it becomes clogged with trash. A vacuum breaker is provided to prevent the condenser from flooding in case of accidental stopping of the centrifugal pump. This style of condenser is suitable for units from 300 to 8000 kilowatts. It is built by the A. S. Cameron Steam Pump Works of New York city.

#### H. B. Smith Heavy Molding Machine.

An accompanying illustration presents a view of the H. B. Smith improved No. 134-A heavy eight-inch outside molding machine.

The frame is cast whole, and is 28½ inches wide by 8 feet long, which gives ample room for long and wide belts. The design is of strongest possible form, and admits of easy access to the inside vertical head, and it also supports the table close to the under head.

The table is extra heavy, adjustably gibbed to the frame, and adjusts up and down by a single screw which rests on ball bearings and is adjusted by a winch from the front. For deep work it will drop as low as 9½ inches, or by removing the outside headstock as low as 12½ inches. When the table is adjusted to position it is then clamped firmly to the frame by two clamp bolts, one bolt through the outside support to upper head and the other near the under head.

The cutter spindles are all made of high-carbon steel, carefully turned and ground to fit the bearings. They are 1½ inches in the bearings, and the upper and under spindles are 1½ inches where the heads go, while the side spindles are 1¼ inches for the heads. The under spindle, like top mandrel, is provided with three bearings, and the head is removable without disturbing the spindle.

The bearings to the upper and lower cutter spindles are of our patent clamp self-oiling style, which can be adjusted to the one-thousandth part of an inch, and they are thoroughly compensating. The upper spindle is provided with an adjustable outside bearing 4½ inches long, and the other two bearings are 6½ inches long each. The outside bearing to the under spindle is readily removable so as to take off the under head. The vertical spindles have self-oiling compensating cap bearings, the pull of the belts being against

8 degrees, and these angles are not disturbed when adjusted laterally or vertically. The inside vertical headstock is attached to the table, and with the outside head goes up and down with same.

The feed mechanism is composed of two upper feed rolls, one 4 inch and the other 2½ inches diameter, and one 4-inch roll in the table, all driven and expansively geared so as to drive in any position of the table. The two upper rolls are given independent pressure by two long coiled springs placed within the framing. The feed shafts are 1½ inches, with substantial bearing, and both upper rolls are driven by a downward pressure of the gears, thereby increasing the power of the feed. There are two rates of feed, 25 and 44 feet a minute, and which are started and stopped by a lever in front. This lever actuates a friction clutch, and the motion from the clutch shaft is communicated to the train of feed gears by a very fine hardened steel automobile roller-bearing chain running on milled sprockets; hence the feeds are very powerful and positive. The feeding mechanism as a whole has a screw adjustment to regulate the draw to the fence side of the machine. By raising a lever to a vertical position it lifts the feed rolls so that the stock can be withdrawn.

The under head, besides having a horizontal adjustment and being removable from the spindle, has an adjustment to regulate the amount of cut, and the end of the bed after the head has an adjustment to fit the cut as well as being raised and lowered with the head. Therefore, it is right for any cut when once set for the cutters in use. The end of the table swings down for access to the cutters.

The cutterheads furnished with the machine are all four-slotted, lipped and made from high-carbon hammered steel, and all are of the same cutting circle (5½ inches), thus allowing an interchange of cutters on the different heads.

The pressure bars and chipbreakers are of the latest design, and all readily removable for quick access to the cutterheads. The chipbreaker to the upper head is adjustable to and from the cut, and is adjustably weighted. There are a pressure foot immediately after the upper cutter and another over the under cutter, and these can be connected by a board or reverse molding so as to make the pressure continuous. These pressure feet are adjusted by hand wheels; also a spring pres-

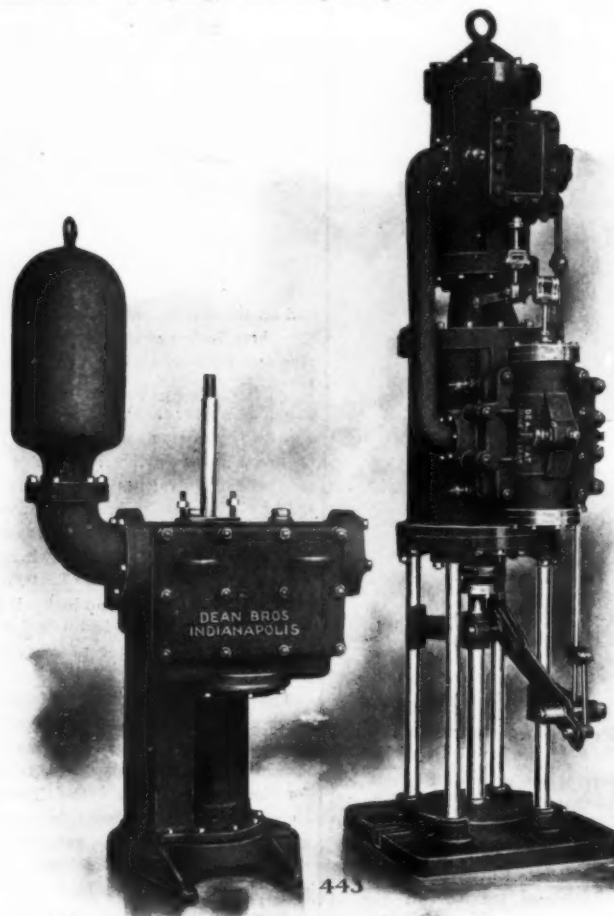
spindle, each head having cutterhead bolts and a pair of plain knives; a chipbreaker to the outside vertical head, one cap head, and wrenches and guide shown in the foreground of cut.

This machine is built by the H. B. Smith Machine Co. of Smithville, N. J.

#### Dean Bros. Vertical Pump.

There is presented herewith a view of the Dean Bros. vertical pump, with com-

space, and the pump cylinder is much less liable to wear than the horizontal type. In the horizontal type the sediment and grit deposit on the lower side of cylinder causes wear and cutting of both cylinder and packing. The vertical pump is not subject to this wear, because the sediment will tend to lodge at the lower cylinder head and on top of piston, but the agitation of the water in cylinder tends to scour these places.



DEAN BROS. VERTICAL PUMP.

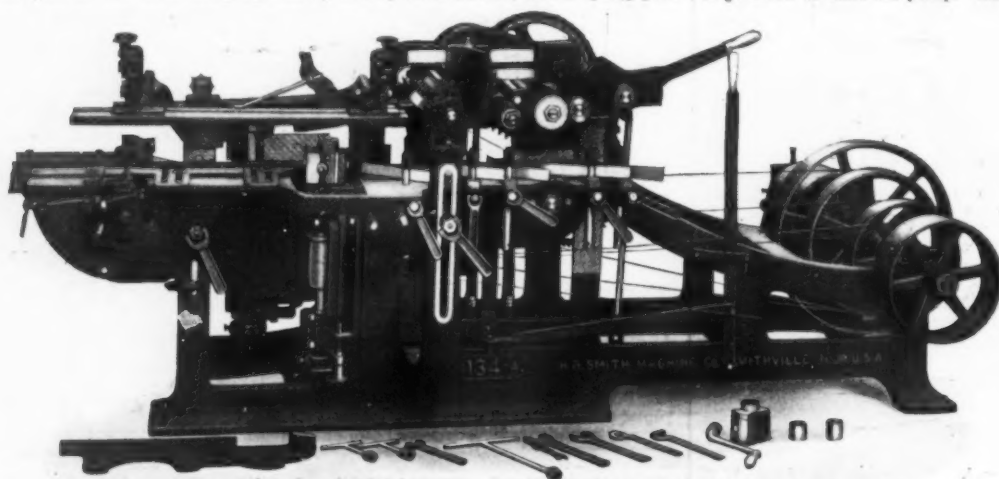
ound steam cylinders. This pump is for wells of considerable depth or places where it is inconvenient or impossible to use horizontal pumps. The steam cylinders are placed upon the surface above the well or shaft, so that it is never necessary to go below to start the pump. The pump

At the right of illustration is the steam or driving end of pump. It has two steam cylinders; the upper one is the high-pressure cylinder, the lower one is the low-pressure cylinder. Steam is first used in the high-pressure cylinder and then passes to the low-pressure cylinder. In this way great economy of steam is attained, as it is used expansively.

At the left of the cut is the pump cylinder. This is double-acting, and can be placed any desired distance below the steam end. The whole apparatus is designed for the efficient and economical pumping of water from varying depths. The manufacturer is the Dean Bros. Steam Pump Works, Indianapolis, Ind.

#### The Texas City Oil Refinery.

The Texas City Refining Co., Texas City, Texas, will begin the operation of its plant in April. It has been constructing this plant for some months past, and has provided a modern establishment for refining oil, including eight stills, a tail-house where the refined oil is graded and directed to proper storage tank, 16 large storage tanks, power-house 60x70 feet equipped with boilers and two direct-connected engines and dynamos to transmit electricity for driving the machinery, a 75x150 barrel-house, three large tanks for storing export oil, machine shops, office building and various other structures. The plant will have a daily capacity of 1500 barrels of oil, and will be augmented by a paraffine-wax factory, for which ground has been broken.



H. B. SMITH EIGHT-INCH MOLDING MACHINE.

the boxes. The countershaft bearings are compensating and self-lubricating.

The headstocks of the upper and under heads have longitudinal adjustment, and the vertical heads or spindles have vertical, lateral and angular adjustments. The angular adjustment to the outside head is 17 degrees and to the inside head

sure just opposite the inside vertical head, which is not shown on the cut.

The spring posts are held solidly by improved cast-steel clamp, which does not bruise the post, holds more firmly and is easily repaired in case of wear.

Each four-side machine is furnished with one four-slotted steel head to each

is fastened to a cross timber in the well, and is connected with the frame of the steam cylinder by two vertical rods. It will work without shock or jar, as the amount of steam for downward or upward stroke can be governed by the engineer.

The vertical type of pump is preferred for many situations. It occupies less



# Construction Department

## TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

### ADDRESS FULLY

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

### WRITE DIRECT

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

### BRIDGES, CULVERTS, VIADUCTS

Hardeeville, S. C.—Atlantic Coast Line Railroad, E. B. Pleasants, chief engineer, Wilmington, N. C., awarded contract to Gadsden Contracting Co., Savannah, Ga., for construction of steel bridge across Savannah River at Hardeeville. (Recently mentioned under Wilmington, N. C.)

Hillsboro, Texas.—Hill and Bosque counties will jointly construct bridge across Brazos River, to cost about \$18,000. Address County Commissioners of Hill County, at Hillsboro, and of Bosque County, at Meridian, Texas.

Hondo, Texas.—Medina county will vote April 6 on issuance of \$40,000 of bridge and road bonds. Address County Commissioners.

Laurens, S. C.—Laurens and Greenwood counties will build steel bridge ("Watts Bridge") over Saluda River on road from Cross Hill to Ninety-Six, and "Smith's Bridge" across same stream near Hodges; bids opened March 23 at office of (Greenwood) County Supervisor, T. C. Burnett, Greenwood; work to be completed within three months.

Pee Dee, S. C.—Phillips & Allport, 1110 East Main St., Richmond, Va., recently reported as having contract to build concrete piers and steel girders across Great Pee Dee River for Atlantic Coast Line Railroad, will construct four abutments, 49 piers and 200 concrete pedestals; bridge three-quarters of mile long; concrete to be laid on pile foundation driven to rock; all machinery required has been secured; estimated cost, including steel work, \$400,000; Resident Engineer Trenholm, Pee Dee, is in charge of work. Atlantic Coast Line Railroad has awarded two similar contracts for trestles across Santee River and across Savannah River.

Norfolk, Va.—Permanent Road Commission (Alvah H. Martin, M. L. Long and George W. Brown) decided to build concrete bridge over Milldam Creek and Newton Quarter Creek, on Great Bridge road.

Savannah, Ga.—Seaboard Air Line Railway, W. L. Seddon, chief engineer, Portsmouth, Va., awarded contract to Gadsden

Contracting Co. of Savannah for construction of steel-lift bridge across Savannah River. Company's receivers have offices at 401 Continental Trust Bldg., Baltimore, Md. (Previously mentioned.)

Savannah, Ga.—Chatham county will construct reinforced concrete lock and bridge, Dundee Canal outlet; bids to be opened May 3; G. Reuben Butler, clerk Chatham County Commissioners. (See "Machinery Wanted.")

Terrell, Texas.—Arrangements are being considered for construction of concrete bridge across Brushy Creek; if built, construction will be under supervision of Commissioner H. A. Hart.

University City, P. O. St. Louis, Mo.—City will vote on issuance of \$30,000 bridge bonds. Address The Mayor.

Walker County, Ga.—Chickamauga Park Commission, E. E. Betts, engineer, 905 James Bldg., Chattanooga, Tenn., will receive proposals until April 15 for 90-foot steel truss bridge over West Chickamauga Creek at Lee & Gordon's Mills. (See "Machinery Wanted.")

Washington, Va.—Bids will be opened April 6 for construction of two steel bridges in Rappahannock county, 140x80 feet long, respectively. P. St. J. Wilson, Richmond, Va., State Highway Commissioner. (See "Machinery Wanted.")

### CANNING AND PACKING PLANTS

Buffalo Station, Va.—Harry and William Burks, Glasgow, Va., will establish cannery at Buffalo Station; capacity 400 cases daily.

Morrilton, Ark.—Loid Rainwater, Jack Stevens, Walter Smith and others are promoting establishment of \$10,000 cannery.

Nashville, Tenn.—Tennessee Packing & Stockyards Co. (recently reported incorporated and to consolidate Tennessee Packing & Provision Co., Enterprise Soap Works and Union Stockyards) will make improvements to plants; walls of packing plant will be replaced with concrete or brick; concrete floors; new machinery will be installed, including patented apparatus to scrape 500 hogs an hour; capacity of plant will be 1000 hogs, 200 head of cattle and 500 sheep daily; will establish ice plant and erect office building to cost \$5000.

Paradis, La.—Jewett Allin contemplates establishing vegetable cannery. (See "Machinery Wanted.")

Pulaski, Tenn.—Richland Canning Co., recently noted incorporated, will establish fruit and vegetable cannery with capacity of 15,000 to 20,000 cans daily; will use creamery building of stone construction, making additions and improvements; W. E. Abernathy, president; Fagan Booth, vice-president; S. C. Appleby, treasurer; W. P. Townsend, secretary and general manager. (See "Machinery Wanted.")

Tulsa, Okla.—Tulsa Canning & Manufacturing Co., recently reported incorporated, will establish vegetable cannery with capacity of 10,000 cans daily; will erect main building 30x60 feet, of ordinary construction, and 20x90-foot fireproof warehouse; cost \$3000; will purchase machinery costing \$2000; M. A. Devinna, president; C. W. Deming, vice-president; Chas. T. Reuter, secretary; L. D. Marr, treasurer. (See "Machinery Wanted.")

Tulsa Mills, Md.—Company organized by George Callahan, B. F. Carroll, L. M. Hill and others to establish cannery.

### CLAYWORKING PLANTS

Baltimore, Md.—Brick.—Westport Paving Brick Co., 22 Abell Bldg., recently reported incorporated (under "Miscellaneous Enterprises"), will establish plant for manufacture of paving brick, sewer brick, etc.; John W. Hall, president; J. Kemp Bartlett, vice-president; H. L. Carter, secretary-treasurer; will erect fireproof building of steel construction, galvanized-iron covered; architect, Geo. R. Morris, Equitable Bldg., Baltimore; will install machinery. (See "Machinery Wanted.")

Bluefield, W. Va.—Brick.—C. H. Henley, Randallman, N. C., and D. W. Fulp, Bluefield, contemplate establishment of brick plant at Bluefield.

Sequin, Texas.—Brick.—Lone Star Brick Co. being organized with \$60,000 capital stock to take over Pearson plant; proposes to enlarge and manufacture paving brick, roof tile, etc.

Union City, Ga.—Brick.—Union City Brick Co. incorporated by L. M. Wright, Rome, Ga.; Julian Baxter, Atlanta, and Longstreet Hull

of Athens, is proceeding with erection and equipment of proposed plant to manufacture buff brick; machinery purchased.

### COAL MINES AND COKE OVENS

Bluefield, W. Va.—Brighton & Lansing Coal Co. incorporated with \$300,000 capital stock by H. G. Young and D. G. Thompson of Charleston; Fred J. Horton, Alwyn L. Brumbaugh and John F. Goshorn of Iowa, Kans.

Charleston, W. Va.—E. D. Leach, Moundsville, W. Va., purchased 700 acres of coal land for development; will make improvements and increase capacity of mines.

Charleston, W. Va.—Coal River Land Co. incorporated with \$2,000,000 capital stock by W. A. MacCorkle, J. E. Chilton, T. S. Clark, W. E. Chilton and W. G. MacCorkle; controls 30,000 acres of mineral and timber land in Boone and Logan counties.

Clay County, Ky.—R. O. Campbell, Atlanta, Ga., purchased mineral land in Clay county for development.

Clay County, Ky.—Knox-Clay Coal Co. organized by F. D. Sampson, John W. Sampson & S. A. Smith, all of Barboursville, Ky., purchased and will develop 10,000 acres of coal land.

Clay County, Ky.—J. H. Graham, Knoxville, Tenn., and associates purchased 45,000 acres of mineral and timber land in Clay and Knox counties; will hold for development.

Haymarket, Va.—Pennoir Coal, Oil & Gas Co. incorporated with capital stock of \$200,000 by Wm. R. Tulloss and Oscar C. Hutchinson of Haymarket, J. Wilbur Latham of Calverton, Va.; Samuel S. Simpson and F. S. Roy Smith of Washington, D. C. It has leases for 10,000 acres coal and oil lands for development.

Logan, W. Va.—Dixie Coal Co. incorporated with \$200,000 capital stock by C. W. Jones, E. Truax, W. P. Evans and E. L. Rooke, all of Cora, W. Va., and A. H. Land, Bluefield, W. Va.; to develop coal mines near Logan; will soon begin construction of tipples and making of entries.

Moundsville, W. Va.—The Kanawha Collieries Co. incorporated with capital stock of \$200,000 by E. D. Leach, James T. Miller, J. E. Potts, O. D. Stroder and John E. Hughes.

Rosebud, W. Va.—Rosebud Fuel Co. organized with \$75,000 capital stock; purchased property of Rosebud Coal Co., comprising about 100 acres, and electric mining plant of 700 tons daily, to be increased; W. E. Watson, Jr., president and general manager; J. P. Straight, secretary-treasurer, both of Fairmont, W. Va.; Friend Cox, Wheeling, W. Va., vice-president; Mr. Straight in active charge of mine; main office at Fairmont.

Smithers, W. Va.—Columbus Iron & Steel Co., Columbus, Ohio, will install by-product coke ovens costing \$450,000. (See "Iron & Steel Plants.")

Strawn, Texas.—William Allen contemplates developing coal properties.

### COTTON COMPRESSES AND GINS

Angelita, Texas.—George L. Caldwell, Corpus Christi, Texas, will establish cotton gin at Angelita.

Bunch, Texas.—P. H. Cook will establish four-stand 80-saw steam cotton gin.

Cecil, Ga.—Cecil Ginning & Storage Co. incorporated with \$7000 capital stock; officers, I. P. Belote, J. D. Hutchinson and J. A. Hutchinson, the latter secretary-treasurer; is erecting frame buildings 30x70 and 20x42 feet, with galvanized-iron roofing; cost \$1000; no machinery needed; capacity 50 bales cotton daily.

Haralson, Ga.—Grovenstein-Blahop Company incorporated to establish cotton gin, cottonseed-oil mill and fertilizer factory.

Italy, Texas.—Franz Brass & Co., Hillsboro, Texas, are building cotton compress recently noted promoted by Geo. K. G. Stroud and E. C. Woods.

Moultrie, Ga.—Moultrie Fertilizer & Manufacturing Co. incorporated by W. S. Cobb, Z. H. Clark and others; will install compress of 50,000 bales capacity. (See "Miscellaneous Manufacturing Plants.")

Notasulga, Ala.—Notasulga Cotton Oil Co., W. J. Bridges, president, recently noted to establish ginnery with 100 bales daily capacity, has purchased four 80-saw outfit; will erect two-story wooden structure.

Somerville, Tenn.—Farmers' Mill & Gin Co.

Incorporated with \$5000 capital stock by F. P. Kyle, E. H. Irwin, E. G. Griffin and others.

Union City, Tenn.—Company organized by George S. Hardy, G. T. Taylor, L. S. Parks and others to establish cotton gin.

### COTTONSEED-OIL MILLS

Haralson, Ga.—Grovenstein-Blahop Company incorporated to establish cottonseed-oil mill. (See "Cotton Compresses and Gins.")

Kyle, Texas.—George T. Parkhouse, Dallas, Texas; C. F. Heldenrich, Kyle; D. C. Johnson, San Marcos, Texas, and others are interested in establishment of cotton-oil mills at Kyle and San Marcos, Texas.

Moultrie, Ga.—Moultrie Fertilizer & Manufacturing Co. incorporated by W. S. Cobb and others. (See "Miscellaneous Manufacturing Plants.")

Port Arthur, Texas.—J. W. Allison, Ennis, Texas, will, it is reported, establish cottonseed-oil mill at Port Arthur.

Port Arthur, Texas.—P. A. Fitzhugh, Gulfport, Miss., contemplates establishment of cottonseed-oil mill at Port Arthur.

San Marcos, Texas.—D. C. Johnson and others are interested in establishment of cottonseed-oil mills. (See Kyle.)

### ELECTRIC-LIGHT AND POWER PLANTS

Anadarko, Okla.—O'Neil Engineering Co., Dallas, Texas, with T. C. Bradford in charge of construction, is proceeding with work on hydro-electric plant and dam across Washita River; hollow reinforced concrete dam, according to plans and patents of Ambursen Hydraulic Construction Co., Boston, Mass.; power-house 33x37 feet; two 100-kilowatt machines, connected to turbines of right and left type; also turbine-driven pump to supply water to city; turbines to be operated by 14-foot head of water; spillway 132 feet wide, protected by abutments; core wall of concrete; sheet piling to be driven about 200 feet to edge of hills, then earth-covered to high-water mark; estimated cost \$80,000. (Previously mentioned.)

Buena Vista, Va.—Rockbridge Power Co. awarded contract for machinery for power plant at Gooseneck Dam, four miles below Buena Vista, to General Electric Co., Schenectady, N. Y. (Further facts recently mentioned.)

Camp Hill, Ala.—City will vote on bond issue for electric-light plant. Address The Mayor.

Capitol Hill, Okla.—Oklahoma Gas-Electric Co. has secured electric-lighting franchise; subject to election.

Canton, N. C.—G. N. Henson, cashier Bank of Canton, and D. J. Kerr, electrical engineer of Champion Fiber Co., are promoting construction of electric-light plant.

Cassville, Mo.—Cassville & Western Railway, S. M. Mitchell, general manager, will build power-house.

De Funik Springs, Fla.—City will vote April 15 on issuance of \$10,000 electric-light bonds. Address The Mayor.

Dothan, Ala.—City Council will consider ordinance providing for issuance of \$20,000 of bonds for extension of water, sewer and light systems. Address The Mayor.

El Paso, Texas.—Mesilla Valley & El Paso Interurban Railway Co. will construct power station; contracts for equipment will be awarded through H. A. Baum, 33 Michigan Ave., and O. H. Baum, El Paso.

Follansbee, W. Va.—Follansbee Water & Light Co., recently reported, has elected H. C. Meyer president, Thomas J. Mahan vice-president and C. B. Crawford secretary-treasurer. (See "Water-works.")

Hagerstown, Md.—Street Commissioners instructed J. O. Beard, general manager of municipal electric-light plant, to secure estimates for improvements to light plant costing about \$20,000; proposed to install 1000-horse-power engine and one 750-kilowatt generator, which will double capacity of plant.

Hattiesburg, Miss.—Southern Lumber & Ice Co. will, it is reported, install electric-light and power plant.

Kiowa, Okla.—City voted \$31,000 water-works and electric-light bonds. Address The Mayor.

Lehigh, Okla.—City has voted \$12,500 of bonds for construction of electric-light plant. O'Neil Engineering Co., Dallas, Texas, will be in charge.

Minco, Okla.—City will probably let contract early in April for material for and construction of electric-light plant and water-works recently mentioned; cost \$25,000 for both; plans, etc., with Burns & McDonnell, Kansas City, engineers. (See "Machinery Wanted.")

Okemah, Okla.—City has voted \$55,000 of bonds for electric-light and water systems. Address The Mayor.

Oklahoma City, Okla.—Weleeta Water-power Co. incorporated with \$10,000 capital stock by C. T. Blake of Hobart, S. T. Ambler and H. McCaffin.

Olney, Texas.—T. H. Kemp will construct electric-light plant.

Rockwood, Tenn.—City contemplates improvements to electric-light plant. Address The Mayor. (See "Road and Street Improvements.")

Ryan, Okla.—City will vote in about 30 days on \$69,000 bond issue recently mentioned, \$6000 to be expended on electric-light plant; O'Neill Engineering Co., Dallas, Texas, engineer in charge; J. L. Henderson, chairman Board of Trustees. (See "Water-works.")

San Antonio, Texas.—San Antonio Gas & Electric Co. will build power plant to cost \$125,000; engineers are now making surveys.

Toccoa, Ga.—J. D. Prather of Toccoa and C. G. Rolston, Pittsburg, Pa., plan to construct dam on Tugalo River; dam is to be 20 feet high and cover 250 to 300 acres; estimated cost \$150,000. R. N. Miles is representative of Mr. Rolston.

University City, P. O. St. Louis, Mo.—City will vote on issuance of \$20,000 of electric-light-plant bonds. Address The Mayor.

Walling, Tenn.—Walling Light & Power Co. incorporated with \$5000 capital stock by Jesse Walling, H. R. Walling, S. J. Stroud and others.

Walter, Okla.—City has voted to grant 20-year electric-light franchise to O'Neal Electrical Co., Dallas, Texas; engineers has made test of water supply and velocity of current in Cache Creek and estimates that creek will supply not less than 150 horse-power; company expects to develop this power for commercial and manufacturing purposes; is under contract to begin work on its plant within 30 days and have same completed and in operation within six months.

Watonga, Okla.—City will install new engine and generator, to cost \$3500, for electric-light plant and water-works; date of opening proposals not fixed; J. C. Stanfield, clerk; bond issue recently noted. (See "Machinery Wanted.")

Wilmington, N. C.—Tidewater Power Co. will make improvements to properties at Wilmington and Wrightsville Beach; improvements at Wilmington will include installation of engine and additional machinery to double, it is said, generative power of plant. (See "Miscellaneous Manufacturing Plants.")

## FLOUR, FEED AND MEAL MILLS

Asheboro, N. C.—Asheboro Roller Mills, Asheboro, N. C., awarded contract to W. J. Savage & Co., Knoxville, Tenn., for remodeling mill; capacity to be 100 barrels; plain sifter system; machinery purchased.

Buford, Tenn.—Evans & Parsons contemplate, it is reported, establishment of corn mill.

Chattanooga, Tenn.—Hamilton Mill Co. incorporated with \$10,000 capital stock by J. M. Howard, T. N. Henderson, C. L. Hays and others.

Culleoka, Tenn.—Dugger & Co. will establish corn mill.

Gadsden, Ala.—E. B. Hyre contemplates erection of new mill.

Galax, Va.—W. I. Harp will establish 40 or 50 barrel flour mill.

Houston, Va.—Milton Mill Co. incorporated with \$20,000 capital stock; P. B. Moses, president, Chatham, Va.; W. T. Burton, vice-president, Danville, Va.; L. J. Whitlock, secretary and treasurer, Milton, N. C.

Paradis, La.—Jewett Allyn contemplates establishing stock feed (hay) mill. (See "Machinery Wanted.")

Taylorsville, N. C.—John W. Spencer, R. F. D. No. 6, will establish roller flour and corn mill.

Woodstock, Va.—J. I. Triplett will establish flour mill and grain elevator; mill will be five stories; capacity, 250 barrels.

## FOUNDRY AND MACHINE PLANTS

Atlanta, Ga.—Printing Presses.—Thomas & Small, 628 Candler Bldg., are interested in formation of company to manufacture improved newspaper printing press.

Alexandria, Va.—Engines.—Emerson Engine

Co., Victor L. Emerson, president and treasurer, is installing plant (recently noted) for manufacture of marine engines using gasoline and producer gas, sizes from 10 to 1000 horse-power; capacity 40 engines per week.

Andrews, N. C.—Bollers.—Wm. J. Ellis, C. W. Savage, B. R. Fakes and associates plan organization of company to manufacture boilers designed by Mr. Ellis; boilers for both stationary and locomotive engines; have not determined details of plants, etc.

Brinkley, Ark.—Car Works.—Brinkley Car Works & Manufacturing Co. will expend about \$15,000 to repair and improve plant damaged by storm.

Dallas, Texas.—Foundry.—Hardwick-Abbott Manufacturing Co., recently reported incorporated (under "Miscellaneous Manufacturing Plants"), has taken over and consolidated Greenville Foundry & Machine Co., Greenville, Texas, and Machinery Manufacturing Co., Dallas; will operate as iron and brass foundry and machine shop.

Hattiesburg, Miss.—Foundry.—Kemp Machine & Foundry Co. will, it is reported, expend about \$12,000 for improvement to plant.

Marion, N. C.—Foundry.—A. L. Pangle, Mooresville, N. C., will, it is reported, establish foundry at Marion.

New Orleans, La.—Harvester.—Hadley Harvester Co. incorporated with \$500,000 capital stock by A. N. Hadley, John C. Williams, Clark Slatz and others.

Pine Bluff, Ark.—Safety Rail Joint.—Taylor Safety Rail Joint Co. incorporated with \$25,000 capital stock by B. P. Taylor, A. W. Troupe, A. A. Le Laurin and L. T. Sallee; will manufacture patented safety rail joint.

Ruston, La.—Car Wheels, etc.—Ruston Foundry and Machine Shop, Ltd., W. W. Brown, president, recently noted to enlarge plant, has not decided whether plant will be established at Winnfield or Ruston; will erect brick and steel building about 70x160 feet, and will install gray-iron foundry and car-wheel machinery; architect not selected.

St. Louis, Mo.—Machines.—Fleegee Manufacturing Co. incorporated with \$32,000 capital stock by Frank H. Fleegee, Roy F. Belaire, Luella B. Leacock and others; will manufacture centrifugal separator machines.

Tulsa, Okla.—Iron Works.—Oklahoma Iron Works, recently noted to purchase site for extension of plant, will erect foundry building 160x80 feet, and structural iron shop 200x100 feet; cost, including ground, \$35,000; Daniel J. Moran, engineer and architect in charge.

## GAS AND OIL DEVELOPMENTS

Algiers, Station A, New Orleans, La.—Algierne Oil Co. incorporated with \$200,000 capital stock by Charles D. Hill, Crawford G. Hollifield, both of New Orleans; Thomas J. Kernan, East Baton Rouge, La., and William Winans.

Charleston, W. Va.—Gaspipe Line.—Columbia Gas & Electric Co., First National Bank Bldg., Cincinnati, Ohio, will build another gaspipe line in West Virginia, extending present line eastward; also will construct additional line from West Virginia to Cleveland, Ohio; will expend about \$4,000,000; details now being arranged.

Chelsea, Okla.—Ward Oil & Gas Co. incorporated with \$10,000 capital stock by Charles F. S. Hart, Dewey, Okla.; Thomas C. Laney, Lima, Ohio, and Harry C. Wieble, Coffeyville, Kans.

Guy, Texas.—Guy-Rosenberg Oil & Development Co. organized with \$20,000 capital stock; J. F. Rowan, president; W. B. Lowry, vice-president; Roy Chapman, secretary and treasurer; main office, Rosenberg, Texas.

Haymarket, Va.—Pennoir Coal, Oil & Gas Co. incorporated with \$200,000 capital stock by Wm. R. Tulloss, Oscar Hutchinson, both of Haymarket; J. Wilbur Latham, Covington, Va., and others; has leases for 10,000 acres coal and oil lands for development.

Nashville, Tenn.—Texas, Louisiana & Arkansas Oil & Pipe Line Co. has changed name to Rodessa Oil & Land Co. and increased capital stock to \$100,000.

New Orleans, La.—Myles Mineral Co. organized with \$500,000 capital stock; F. F. Myles, president; B. B. Myles, vice-president; H. M. Journee, secretary and treasurer; will develop gas and oil land.

Okmulgee, Okla.—Ore Hill Oil Co. incorporated with \$10,000 capital stock by John H. Ribold, E. T. McDowell and R. C. Winslow.

Parkersburg, W. Va.—Midcap Oil & Gas Co. incorporated with \$50,000 capital stock by Thomas Gartlan, John Marshall, W. D. Moore and others.

Parkersburg, W. Va.—Parkersburg-Buchanan Oil & Gas Co. incorporated with \$25,000 capital stock by J. J. Lowe, H. H. Broad-

water, both of Parkersburg; V. S. Lynch, Buchanan, W. Va., and others.

Sour Lake, Texas.—Ransom Oil Co. incorporated with \$50,000 capital stock by J. B. Robinson, C. W. Ransom and C. L. Wallis.

Tulsa, Okla.—Arthur Oil Co. incorporated with \$50,000 capital stock by Arthur B. Reese, J. A. Hill and W. H. Kiser.

Wheeling, W. Va.—Great Eastern Oil & Fuel Co. incorporated with \$100,000 capital stock by L. E. Rex, J. M. Ritz, E. M. Hammond and others.

## ICE AND COLD-STORAGE PLANTS

Augusta, Ga.—Augusta Abattoir Co. planning to establish \$15,000 cold-storage plant. (See "Miscellaneous Enterprises.")

Beaumont, Texas.—Beaumont Ice Manufacturing Co. incorporated with \$30,000 capital stock by Randall Silverman, Oliver Todd, George Newman and others; will erect buildings for ice plant with capacity of 30 tons daily.

Birmingham, Ala.—Armour & Co., main office, Chicago, Ill., will, it is reported, establish \$50,000 cold-storage plant in Birmingham.

El Reno, Okla.—Western Ice Co. incorporated with \$80,000 capital stock by J. T. Bradford, H. C. Bradford and W. H. Griley.

Gonzales, Texas.—Stahl Bros. will build cold-storage plant recently noted; will erect \$4000 building 30x40 feet in size, and additional eight-foot room; will let same by contract; contractor to furnish 20-horse-power motor, 20-horse-power gasoline engine and six-ton refrigerating machine.

Lancaster, S. C.—T. McIver Hughes will establish ice plant; capacity, 10 to 20 tons daily.

Montgomery, Ala.—Alabama Storage & Ice Co. incorporated with \$10,000 capital stock by J. H. Freid, L. Klein and M. Strauss; will establish plant with capacity of 30 tons daily.

Nashville, Tenn.—Tennessee Packing & Stock Yards Co. will establish ice plant. (See "Canning and Packing Plants.")

Olney, Texas.—Daugherty Bros., Alpine, Texas, will establish ice factory and electric-light plant.

Olney, Texas.—Daugherty Bros., Box 267, will establish 10-ton ice plant; will erect ironclad 40x72-foot building; cost \$1200; construction by owners; have placed order for compression machinery costing \$10,000. (Recently noted under Crowell, Texas.)

Rockingham, N. C.—Williams Bros. Co. incorporated with \$10,000 capital stock by J. C. Dockery, L. M. and N. H. Williams.

Rutherfordton, N. C.—Carpenter, Taylor & Co. will establish three-ton ice plant.

St. Louis, Mo.—Polar Wave Ice & Fuel Co. will erect branch plant; two stories; brick and stone; 50x157 feet; cost \$15,000.

Victoria, Texas.—Victoria Manufacturing Co. will erect cold-storage plant; two stories; brick; 50x30 feet.

## IRON AND STEEL PLANTS

Atlanta, Ga.—Iron Furnace.—First National Bank, Chas. A. Lyerly, president, purchased plant of Eagle Iron Co.; will organize Eagle Furnace Co. and blow in furnace in August or September.

Birmingham, Ala.—Iron Furnace.—Tennessee Coal, Iron & Railroad Co., George G. Crawford, president, has blown out Alice Furnace for relining.

Smithers, W. Va.—Steel Tipple, etc.—Columbus Iron & Steel Co. will erect steel tipple and install by-product coke ovens costing \$150,000; office address, Columbus, Ohio.

## LUMBER-MANUFACTURING PLANTS

Birmingham, Ala.—Peerless Lumber & Manufacturing Co. incorporated with \$50,000 capital stock; F. J. Sheppard, president; F. E. Smith, vice-president; A. B. Lovelace, secretary and treasurer.

Brazoria, Texas.—Brazoria Lumber Co. incorporated with \$5000 capital stock by T. L. Smith, J. G. Smith and H. S. Smith.

Charleston, W. Va.—Coal River Land Co. incorporated with \$2,000,000 capital stock by W. A. McCorkle, J. E. Chilton, W. E. Chilton and others.

Cottonport, La.—Avoyelles Cypress Co., previously noted to establish sawmill at Cottonport, awarded following contracts: American Bridge Co., Pittsburg, Pa., steel used in construction; Clark Bros. Company, Belmont, N. Y., mill machinery; Houston, Stanwood & Gamble Company, Cincinnati, Ohio, boilers; Davenport (Iowa) Locomotive

Works, locomotives; Lackawana Steel Co., Pittsburg, Pa., steel rails; Lidgerwood Manufacturing Co., New York, skidding machine; plant of steel construction; daily capacity, 60,000 feet of lumber; operations to begin about July 1; cost \$75,000.

Craigsville, Va.—Augusta Manufacturing Co. incorporated with \$10,000 capital stock; E. S. Ryan, president; J. G. Shuey, vice-president and treasurer; H. S. Shuey, secretary.

Georgetown, Texas.—Bedford Lumber Co., C. S. Bedford, president, has not yet made plans for plant recently noted to be rebuilt. (See "Machinery Wanted.")

Guilford, Miss.—Delbow Lumber Co. incorporated with \$15,000 capital stock by W. A. McInnis, H. Y. Quarles and M. K. McInnis.

Hattiesburg, Miss.—Southern Lumber & Ice Co. will expend about \$50,000 for improvements to plant; will install electric-lighting and power plant and make other improvements.

Hollis, Okla.—Greer County Lumber Co. incorporated with \$10,000 capital stock by T. R. Wiseman, D. A. Younger, both of Hollis, and R. G. Shelton, Whitesboro, Texas.

Houston, Texas.—Jones Baker Manufacturing Co. incorporated with \$10,000 capital stock by F. Baker, E. E. Jones and W. B. Jones; will establish planing mill and box factory.

Hurliburt, Ark.—P. O. Memphis, Tenn.—C. D. Bridges Lumber Co. will probably rebuild sawmill reported burned; loss \$35,000.

Jackson, Miss.—Mercantile Lumber Co. incorporated with \$25,000 capital stock by B. J. Vincent, C. B. Carothers and others.

Jackson County, Miss.—W. Denny & Co., Moss Point, Miss., has purchased 50,000,000 feet of standing pine timber in Jackson county for \$200,000.

Kentucky.—J. H. Graham and associates, Knoxville, Tenn., have acquired 45,000 acres of timber and mineral land in Clay and Knox counties, Kentucky, and will develop.

Lebanon, Tenn.—Cumberland Rough Lumber Co. incorporated with \$30,000 capital stock.

Lynchburg, Va.—Wright Manufacturing Co. incorporated with \$50,000 capital stock; A. N. Pierce, president; S. A. Wright, vice-president; J. E. Wood, secretary and treasurer.

Marion, S. C.—Southern Carolina Lumber Co. incorporated with \$1,200,000 capital stock; C. E. Gill, president; H. F. Wunberlich, vice-president; L. D. Lide, secretary; Charles F. Ruggles, treasurer.

Marshall, Texas.—Waterman Lumber Co., recently reported incorporated (under Dallas, Texas), contemplates erection of band mill within two years; J. B. Wilson, president; W. M. Waterman, vice-president and general manager.

Martin County, Ky.—Rockcastle Lumber Co., C. L. Ritter, president, recently reported incorporated with \$200,000 capital stock, will establish band mill with daily capacity of 40,000 feet oak and poplar lumber; will erect building; location undecided—either on Big Sandy River or at mouth of that river on Ohio; present address, care of Tug River Lumber Co., Bristol, Tenn. (See "Machinery Wanted.")

McHue, Ark.—McHue Lumber Co. (G. W. Purcell, J. J. and W. M. Fowler), recently reported to establish finishing plant at McHue, will open proposals about May 1 for saws and planer and matcher; other machinery purchased; will erect \$200 mill construction building; capacity of plant, about 10,000 feet yellow pine lumber daily. (See "Machinery Wanted.")

Nashville, Tenn.—Clear Fork Lumber Co. incorporated with \$15,000 capital stock by Harold Patterson, Fred Roth, James R. Smith and E. E. Barthell.

Norfolk, Va.—Central Lumber Co. incorporated with \$40,000 capital stock; A. J. Stone, president; George B. Grow, secretary and treasurer.

Oakland, Md.—George D. Browning, Swallow Falls, Md., and B. C. McCandlish, Friendsville, Md., have purchased timber in Garrett county; will establish mill near Oakland to cut the timber.

Oconee, Ga.—Oconee Lumber Co. is planning, it is reported, to install about \$5000 of new machinery, including 100-horse-power boiler, large engine and minor mill machinery.

Port Lavaca, Texas.—Gulf Coast Lumber Co. incorporated with \$10,000 capital stock by E. A. Visser, W. F. Hollaman and J. W. Preston.

Red Rock, Ark.—Red Rock Land & Lumber Co. incorporated with \$25,000 capital stock; A. G. McCoombs, president.



Rogers, Ark.—J. W. Robinson will establish planing mill and box factory.

Scott County, Va.—Buck Snodgrass Lumber Co., Johnson City, Tenn., has purchased 400 acres of timber land in Scott county and will establish lumber mill.

St. Louis, Mo.—Chicago-Gulf Export Lumber Co. incorporated with \$50,000 capital stock by S. H. Fullerton, C. L. Robinson, Frank Goepel and others.

### MINING

Alpine, Texas.—Marble.—Jordan Marble Quarry Co., recently reported incorporated, contemplates development of marble; drilling commenced; T. A. Coleman, president; D. J. Woodward, vice-president, San Antonio; John Young, secretary and treasurer. (See "Machinery Wanted.")

Bay City, Texas.—Sulphur.—L. L. Lyons and E. B. Pickett of Liberty, Texas, are interested in proposed sulphur-mine developments lately mentioned.

Brookhaven, Miss.—Gravel.—Flint Gravel Co., M. D. McGrath, president, recently noted incorporated, will install machinery to produce about 20 cars washer gravel daily; open proposals about April 15 for equipment to wash and load gravel; approximate cost, \$15,000; plans for buildings, etc., not settled. (See "Machinery Wanted.")

Joplin, Mo.—Lead and Zinc.—Buenos Ayres Mining Co. incorporated with \$100,000 capital stock by H. A. Ayres, George H. Allen and Walter H. West.

Muskogee, Okla.—Mineral Park Mining & Development Co. incorporated with \$5000 capital stock by M. A. Thompson, John Spanenberg and Roy B. Wagner.

St. Genevieve, Mo.—Kaolin White Clay.—Valentine Reubens and W. C. Chilli have leased tract containing kaolin white clay deposits and will develop.

Wheeling, W. Va.—Sand.—Ohio River Sand & Gravel Co. incorporated by Harry J. Mendel and others; will place sand and gravel digging machine on independent float and tow from one place to another; aside from sand digger will operate number of floats and barges.

### MISCELLANEOUS CONSTRUCTION WORK

Brownsville, Texas.—Irrigation.—Brownsville Land & Improvement Co. awarded contract to J. F. Allen of Fort Worth for construction of canal to irrigate 3000 acres in West Brownsville Addition.

Calcasieu Parish, La.—Drainage.—Board of Commissioners, Iowa Drainage District No. 1, awarded contract to The Wilkins Company, A. C. Wilkins, secretary-treasurer and general manager, Jennings, La., at \$19,000, for digging several miles of ditches in Calcasieu parish; work to be completed by September 1.

Conway, Ark.—Levee.—Bids have been opened for construction of levee by Levee District No. 2, and contract will probably be awarded within a few days. Bidders were W. J. Morrow of Conway, G. W. Riggs of Morrilton and Burdick & Nowlin of Plainview. Specifications call for about 75,000 cubic yards of earthwork and two concrete culverts.

Estherwood, La.—Irrigation.—Mr. Clements of Prairie Hayes made survey for construction of canal to irrigate rice land and will install pumping plant.

Fort Worth, Texas.—Levee.—Tarrant County Commissioners approved report of Henry Dixon of Fort Worth, engineer, who surveyed levee district and ordered election to be held April 24 to vote on issuance of \$250,000 of bonds to reclaim land subject to overflow of Trinity River; proposed to build levee 12 feet high. (Previously mentioned.)

Houston, Texas.—Irrigation.—Masterson Irrigation Co. incorporated with \$25,000 capital stock by H. Masterson, N. T. Masterson and Elliott C. Cagle.

Lakeside, P. O. Eagle Lake, Texas.—Irrigation.—Lake Irrigation Co. incorporated with \$50,000 capital stock by H. W. Rayner, Rudolph Wintermann and J. H. August Meyer.

New Orleans, La.—Levee.—Orleans Levee Board awarded contract to Winamac Bridge Co., Winamac, Ind., for construction of levee between Metairie and West End, on west bank of New Basin Canal, at 31 cents per cubic yard; length, 14,830 feet; estimated to contain 115,000 cubic yards of earth, making cost \$35,650; R. S. Daniel, local representative; Jules C. Koenig, president Levee Board. (Recently mentioned.)

Orange, Texas.—Dredging.—Orange County Commissioners will be petitioned to order election for voting on bond issue of \$100,000, to be used in deepening Sabal Lake channel.

St. Charles Parish, La.—Land Reclamation. St. Charles Land Co. incorporated with \$400,000 capital stock to reclaim 13,500 acres of land in St. Charles parish; operations expected to begin within 60 days; G. A. McWilliams is president and Wallace Bass secretary, both of Walnut, Ill. A. H. Bell, Bloomington, Ill., civil engineer, is interested; company's offices at 145 LaSalle street, Chicago, Ill.

### MISCELLANEOUS ENTERPRISES

Augusta, Ga.—Abattoir.—Augusta Abattoir Co. planning to establish \$12,000 refinery, \$15,000 cold-storage plant and to install other improved facilities to cost \$1500.

Anson, Texas.—Land Improvement.—Wichita Land & Immigration Co. incorporated with \$6000 capital stock by H. L. Norris, E. A. Lee and A. L. Green.

Baltimore, Md.—Garage.—George Elsenhauer, 509 South Central Ave., awarded contract to Arthur F. West, 217 South Gilmore St., Baltimore, for erection of garage and skating rink at North avenue and Lovegrove alley recently mentioned; concrete front; general construction of red brick; 39x175 feet; Old English inn style; fireproof; facades half timber framing, with latticed dormer windows; three stories; plans by C. M. Anderson, 324 North Charles St., Baltimore.

Cape Girardeau, Okla.—Rock Crusher.—Edw. Hely will build rock-crushing plant with daily capacity of 1000 yards.

Charleston, S. C.—Navy Yard Building & Investment Co. incorporated with \$50,000 capital stock by James Allen, R. B. Gilchrist and W. M. Bennett.

Chattanooga, Okla.—Grain Elevator.—Chattanooga Elevator Co. incorporated with \$8000 capital stock by G. E. Parkhill, T. G. Shaffer, O. M. Murray and others.

Chickasha, Okla.—Grain.—Mathews-Linton Grain Co. incorporated with \$10,000 capital stock by W. L. Mathews, F. R. Linton and Z. W. Mathews.

Claude, Texas.—Land and Cattle.—R. E. Edmonson Land & Cattle Co. incorporated with \$50,000 capital stock by Robert E. Edmonson, Wm. R. Edmonson, M. M. Edmonson and George H. Bradfield.

Dallas, Texas.—Engineering.—Southern Engineering Co. incorporated with \$5000 capital stock by Robert L. Shaffer, Henry M. Reynolds and John F. Bruhns.

Dyersburg, Tenn.—Steam Laundry.—City Steam Laundry incorporated with \$15,000 capital stock by W. C. Paris, H. H. Welmer, P. J. Welmer, Jr., and others.

El Paso, Texas.—Motor Cars.—El Paso Motor Car Co. incorporated with \$10,000 capital stock by H. F. Pope, R. J. Bronson and P. C. Rust.

El Reno, Okla.—Machinery.—H. Breuer proposes locating wholesale machinery plant; will erect warehouse and build shops for assembling parts of machines.

Etowah, Tenn.—Hardware.—Etowah Hardware & Furniture Co. incorporated with \$25,000 capital stock; N. B. Dunn, president; T. A. Pannell, vice-president; Charles Wegner, secretary-treasurer; C. A. Webb, manager.

Fostoria, Texas.—Transportation.—Fostoria & Northern Transportation Co. incorporated by Ben B. Foster, Thos. S. Foster, J. L. Thompson and M. Wallace, Jr.

Franklin, Tenn.—Furniture.—W. I. Early Furniture Co. incorporated with \$3000 capital stock by W. I. Early, S. M. Fleming, T. J. Wallace and Newton Cannon, Jr.

Gadsden, Ala.—Abattoir.—Eugene Well will establish abattoir.

Galveston, Texas.—Hardware.—Boddeker & Lyons Hardware Co. organized with \$15,000 capital stock by James A. Boddeker, Robert A. Lyons, Jr., and E. H. Compton.

Houston, Texas.—Engineering Contracting. Winfrey, Schlafl & Porter (J. M. Winfrey, A. Schlafl and H. P. Porter) have organized company for civil, mechanical and industrial engineering and contracting; H. P. Porter, general manager; have additional associate members. (See "Machinery Wanted.")

Jackson, Tenn.—Publishing.—Jackson Publishing Co. incorporated with \$5000 capital stock by J. W. Buford, J. M. Simmons, J. D. Simmons, J. E. Springbelt and W. M. Jones.

Lynchburg, Va.—Grain Elevator.—Piedmont Mills Co. will erect (brick and concrete) grain elevator with capacity of 75,000 bushels; architect, A. E. Baxter, Buffalo, N. Y.; contract placed.

Memphis, Tenn.—Contracting.—Marus Bros. Company, Tennessee Trust Bldg., recently incorrectly reported (under "Miscellaneous Manufacturing Plants") to establish plant, will open office for contracting of interior marble, mosaic, tile and terrazzo; P. A. Finelli, manager.

Meridian, Miss.—Steam Laundry.—White Star Laundry, Con Sheehan Bldg., will erect brick laundry plant.

Mobile, Ala.—Real Estate.—The Realty Company of Mobile, Room 12 Bank of Mobile Bldg., incorporated with \$10,000 capital stock; Thos. F. Costello, president.

Nashville, Okla.—Grain Elevator.—Farmers' Grain & Elevator Co. incorporated with \$8000 capital stock by J. A. Robinson, J. J. Gibson, J. T. Vance and others.

New Orleans, La.—Steam Laundry.—Ideal Laundry Co. incorporated with \$25,000 capital stock; Fred J. Bukowitz, president; Louis Ernst, vice-president; F. Antoine Lambert, secretary and treasurer.

Oklahoma City, Okla.—Contracting.—McIntosh-Barbour Company incorporated with \$50,000 capital stock by William McIntosh, Ross N. Lillard, Charlton Barbour and A. C. Enochs.

Richmond, Va.—Contracting.—Interstate Construction Corporation incorporated with \$10,000 capital stock; James Mullen, president; P. A. Lester, vice-president and treasurer; J. L. Lewis, secretary.

Richmond, Va.—Electrical Supplies.—Ball Electrical Co. incorporated with \$15,000 capital stock R. H. Ball, president; A. L. Lucas, vice-president; B. A. Ruffin, secretary and treasurer.

Rising Star, Texas.—Printing.—X-Ray incorporated by Will Koonce, D. E. Jones and D. M. Jacobs.

Simms, Texas.—Rice Elevator.—H. J. Hauck & Co., Kansas City, Mo., will rebuild rice elevator reported burned; loss \$25,000.

Soash (not a postoffice), Texas.—Townsite. W. P. Soash Land Co., G. A. Leonard, general manager, Waterloo, Iowa, has begun improvements to new town of Soash recently noted; \$10,000 expended, and will make other improvements.

Stinson, Ga.—Land Development.—Durand Realty Co. organized by Charles T. Page, Asa Candler, both of Atlanta, Ga.; Eugene Hardendorf, Chicago, Ill., and others; purchased about 2000 acres of land at Stinson for \$50,000 and will develop as residential section.

St. Louis, Mo.—Contracting.—St. Louis Building Co. incorporated with \$6000 capital stock by F. E. E. Mason, Henry Schulte, A. E. Blaettermann and others.

Taylor, Texas.—Garage.—A. Alexander will erect garage, to be occupied by A. B. Dozier & Co.; sheet-iron construction has begun.

Texarkana, Ark.—Fruit.—Mexican Tropical Fruit Co. incorporated with \$100,000 capital stock; John T. Owsley, president; W. R. Ramage, first vice-president; E. P. Gaines, second vice-president; Walter Jenull, secretary and treasurer.

Texarkana, Ark.—Grain.—Turner Grain Co. incorporated with \$25,000 capital stock; Q. O. Turner, president.

Winston-Salem, N. C.—Garage.—Motor Company awarded contract to Fogle Bros., Winston-Salem, for erection of garage; brick; 40x100 feet; fireproof construction; plate-glass front.

Womble, Ark.—Publishing.—Caddo Publishing Co. incorporated with \$5000 capital stock; J. L. McConnell, president; M. G. Trumbull, vice-president; W. E. Womble, secretary and treasurer.

Woodstock, Va.—Grain Elevator.—J. I. Triplett will establish grain elevator. (See "Flour, Feed and Meal Mills.")

### MISCELLANEOUS MANUFACTURING PLANTS

Abilene, Texas.—Drugs.—Bradfield Drug Co., incorporated with \$8000 capital stock by Mrs. L. H. Bradfield, Louis Montgomery and Sam C. Rice.

Baltimore, Md.—Fireproof Building Materials.—Sagax Wood Co., H. G. Perring, general manager, 106 Dover St. (recently noted under "Woodworking Plants"), will build larger plant; will erect fireproof buildings (of company's materials), 50x200, 20x35 and 25x40 feet; architect in charge, A. Henry Krone, 106 Dover St.; buildings to cost \$20,000; equipment to include 300-horse-power power plant, pulverizers, mixers, driers, hollow-tile press, etc., costing \$30,000; product to be fireproof wood fire-doors, shutters, corridor and partition doors, tile, etc.; daily output, 25 tons. (See "Machinery Wanted.")

Bedford City, Va.—Tin Cans.—Bedford Can Co. incorporated with \$50,000 capital stock; W. A. Falconer, president; G. W. Gills, vice-president; G. W. Johnson, secretary.

Belair, La.—John Dymond, Sr., will rebuild sugar-house reported burned; loss \$40,000.

Birmingham, Ala.—Iron Beds and Steel Office Fixtures.—John W. S. Jones and Willis

Jones have organized company to establish plant for manufacturing iron beds and steel office fixtures; capacity, 20 beds daily; offices, 39th street and Tenth avenue.

Canton, Ga.—Marble Plants.—National Marble Mills incorporated with \$10,000 capital stock by George R. Brown, W. S. Dick and J. W. Barrett.

Columbus, Miss.—Stock Food.—Refuge Cotton Oil Co. will, it is reported, establish plant to manufacture stock food.

Charleston, S. C.—Bagging.—Victor Bagging Co. incorporated with \$15,000 capital stock by A. H. Lunn and M. Rutledge Rivers.

Cuero, Texas.—Tannery.—R. C. Flick, J. C. Howerton and W. M. Ratcliffe are committee to organize company with \$10,000 capital stock to establish tannery with capacity for handling 100 hides weekly; to produce harness, collar, sole and lace leathers; plans are for plant to use power from Buchel dam, across Guadalupe River; contemplate beginning construction soon.

Dallas, Texas.—Shirts.—George P. Ide & Co., Troy, N. Y., will establish branch plant in Dallas for manufacturing shirts.

Dallas, Texas.—Lorch Manufacturing Co. incorporated with \$25,000 capital stock by I. E. Rose, A. Keller and A. Lorch.

Elkins, W. Va.—Gas Regulator.—Grimes Automatic Gas Regulator Co. incorporated with \$25,000 capital stock by S. H. Watring, A. C. Rowland, Blain W. Taylor and others; will manufacture patented device for regulating and controlling natural and artificial gas.

El Reno, Okla.—Automobiles.—Pioneer Car Co., organized by Wright & Roberts, has purchased building and will install new machinery to manufacture automobiles.

Fayetteville, Ark.—Gas Plant.—Nate T. Wagoner, Taliequah, Okla., has been granted franchise and is preparing to install gas plant at Fayetteville; cost \$100,000.

Giddings, Texas.—Creamery.—Giddings Creamery Co., E. J. Neitsch, president, will establish creamery recently mentioned; will erect \$700 building and equip with machinery costing \$1800; machinery ordered; capacity 500 cows at start.

Haralson, Ga.—Grovenstein-Bishop Company incorporated to establish fertilizer factory. (See "Cotton Compresses and Gins.")

High Point, N. C.—Glue.—United States Glue Co., Milwaukee, Wis., will not erect glue factory recently reported.

Houston, Texas.—Patented Lock Device.—W. H. Garner, Palestine, Texas, will organize company with \$1,000,000 capital stock to manufacture patented lock device to keep bolts tight and prevent lost motion on rails and frogs of railroads; main plant to be in Pittsburgh, Pa., and branch in Houston.

Huntington, W. Va.—Hats.—Tri-State Hat Co. incorporated with \$25,000 capital stock by James Patton, B. W. Hackworth, C. W. Lively and others.

Kansas City, Mo.—Roofing.—J. G. Murphy will erect factory building to be occupied as branch by Philip Carey Manufacturing Co. of Lockland, Station R, Cincinnati, Ohio; three stories and basement; reinforced concrete; plans by Clifton B. Sloan.

Kansas City, Mo.—Vacuum Cleaning Machines.—Hope Vacuum Cleaning Co., 232 Ri-alto Bldg., recently reported incorporated (under "Miscellaneous Enterprises"), will manufacture housecleaning machines; capacity, five daily; contemplates erection of building in fall; John T. Hope, president; John E. Walsh, vice-president; H. M. Herrold, secretary-treasurer. (See "Machinery Wanted.")

Louisville, Ky.—Shoes.—Conrad Shoe Manufacturing Co., Willis Mullen, president, will increase capital stock from \$65,000 to \$100,000.

Louisville, Ky.—Jessups & Antrim Ice Cream Co. incorporated with \$3000 capital stock by Victor King, Albert King, both of Louisville; A. Wesley Antrim and Roscoe C. Jessup, both of Indianapolis, Ind.

Macon, Ga.—Automobiles and Carriages.—S. B. Merritt will erect carriage and automobile shops.

Memphis, Tenn.—Soap.—Louisville Soap Co., Louisville, Ky., will establish branch factory in Memphis with capacity of 20,000 boxes of soap monthly.

Memphis, Tenn.—Beverage.—Reuben-Read Beverage Co. incorporated with \$40,000 capital stock by Lawson O. Read, George B. Reuben, C. E. Reuben and others.

Milledgeville, Ga.—Mattresses.—Georgia Felt Mattress Co. (N. G. Mauney and W. G. Shannnonhouse) will establish mattress factory recently mentioned; machinery purchased; capacity, 25 mattresses daily; W. G. Shannnonhouse, manager. (See "Machinery Wanted.")

Mound, Texas.—Land Development.—Medicine Mound Development Co. incorporated with \$10,000 capital stock by R. C. and H. Roos and W. L. Johnston.

Mt. Pleasant, Tenn.—Bottling.—Mt. Pleasant Bottling Works (recently reported incorporated) will erect \$1000 building and equip with carbonating and bottling machinery; capacity, about 200 cases daily; J. E. Anderson, president; W. F. Cummins, manager. (See "Machinery Wanted.")

Moultrie, Ga.—Fertilizer.—Moultrie Fertilizer & Manufacturing Co. incorporated by W. S. Cobb, J. W. Coleman, Z. H. Clark and others; will manufacture fertilizers; will erect frame building of ordinary construction, 200x300 feet; proposals for mixing machinery to be opened in October; capacity first year, 1500 tons; also installing compress.

Muskogee, Okla.—Mattresses.—Carthage Mattress Manufacturing Co., Carthage, Mo., will, it is reported, establish \$15,000 mattress plant at Muskogee.

Nacogdoches, Texas.—Shirts.—M. M. Middlebrook will establish shirt factory.

Norfolk, Va.—Jewelry.—Flickinger Jewelry Co. incorporated with \$10,000 capital stock; M. F. Portlock, president; S. A. Flickinger, secretary.

North Wilkesboro, N. C.—Bottling.—Red Top Bottling Co. incorporated with \$25,000 capital stock by T. S. McNeill, A. E. and S. B. Spainhower.

Pensacola, Fla.—Turpentine Stills, etc.—McMillan Bros. Company, main office, Savannah, Ga., will, it is reported, establish plant at Pensacola to manufacture turpentine stills and naval-stores equipment.

Plaucheville, La.—Syrup.—Resaire Lemoine, Jr., and L. M. Rabalais will, it is reported, establish syrup factory; capacity, 30 tons daily.

Raleigh, N. C.—Advertising Novelties.—American Sales Co. incorporated with \$5000 capital stock by W. P. Coleman, R. J. Walsh and R. L. Coleman.

Rossville, Ga.—Hinges, etc.—Chattanooga Hinge Manufacturing Co., Rev. W. C. Boswell, president, will equip factory to manufacture hinges and washers, and do general machine repair work for mills; will erect one-story frame building with composition roof; cement floor; 30x60 feet; electric lighting.

Scarbro, W. Va.—A. C. Poole Augur Co. will rebuild tool plant reported burned; loss \$15,000.

St. Louis, Mo.—Asphalt.—City contemplates establishment of asphalt plant to cost \$20,000. Address The Mayor.

St. Louis, Mo.—Glass.—W. G. Art Glass Co. incorporated by J. J. Holt, H. G. Gilmore, A. A. Hannan and others.

St. Louis, Mo.—Adding Machines, etc.—National Clock & Electric Manufacturing Co. incorporated with \$100,000 capital stock by Theodore H. Wurmb, Robert Baumann, Joseph G. Beckmann and others.

St. Louis, Mo.—Murad Realty Co. will erect two-story factory building; cost \$3000.

St. Louis, Mo.—Poultry Food.—Balanced Ration Feed Co. incorporated with \$25,000 capital stock by W. S. Cass, C. E. Herren, F. H. Sachleben and W. B. Versteeg.

St. Louis, Mo.—Glass.—Western Cut Glass Co. incorporated with \$10,000 capital stock by Valenty Graniczny, Charles E. Phillips and Henry Zychlin.

Texas City, Texas.—Paraffin Wax.—Texas City Refining Co. will build paraffin-wax factory.

Texarkana, Texas.—Drugs.—Interstate Drug Co. incorporated with \$20,000 capital stock by E. M. Roshelle, C. C. Braugh and P. C. Williams.

Vicksburg, Miss.—Chemicals.—J. D. Chisholm Chemical Co. incorporated with \$5000 capital stock by J. D. Chisholm, P. L. Hennessey and others.

Whiteville, Tenn.—Overalls.—Company organized with \$10,000 capital stock by S. M. Duncan, J. T. Rains, T. S. Davis and others.

Wilmington, N. C.—Gas.—Tidewater Power Co. will make improvements, including enlarging and extending gas mains. (See "Electric-light and Power Plants.")

Winston-Salem, N. C.—Tobacco.—R. J. Reynolds Tobacco Co. will erect additional tobacco factory.

Youngsville, La.—Sugar and Syrup.—Youngsville Sugar Factory incorporated with \$300,000 capital stock; Roy O. Young, president; A. L. Dyer, vice-president; P. R. Duplex, secretary; will purchase and improve plant of Youngsville Louisiana Cane Syrup Co.; will make addition to building at cost of \$15,000; ordinary ironclad structure; Alexan-

der Mouton, architect and engineer; capacity of plant, 500 tons sugar and syrup. (See "Machinery Wanted.")

### RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Tulsa, Okla.—St. Louis & San Francisco Railway, M. C. Byers, chief engineer, St. Louis, Mo., will erect roundhouse in West Tulsa.

### ROAD AND STREET IMPROVEMENTS

Baltimore, Md.—F. E. Schneider & Co., 332 Law Bldg., Baltimore, have contract at \$1.74 per square yard for paving with sheet asphalt Remington and First avenues, between 29th street and Cedar avenue, and 30th street, from Huntingdon to Remington avenue; contract aggregates \$60,000. Specifications have been approved for paving following streets with granite blocks: Alsquith street, from Lexington street to Orleans street; Fremont avenue, from Baltimore street to Lexington street; Fulton avenue, from Baltimore street to Frederick avenue; Perry street, from Light street to Charles street; Park avenue, from Lexington street to Fayette street. Specifications for paving McCulloh alley, from Bloom street to Gold street, with vitrified bricks were likewise approved. This work is to be done by City Engineer's Department. Bids were opened for paving in Annex, recently mentioned, and referred to Commissioners for Opening Streets for tabulation; B. T. Fendall, City Engineer.

Boynton, Va.—Bids will be opened April 12 for construction of about 13 miles of road; R. T. Gordon, chairman of committee. (See "Machinery Wanted.")

Canton, N. C.—City will construct one mile of macadam road and about one-half mile of either brick or bitulithic paving; bids to be opened April 1; J. N. Mease, Mayor; J. W. Scott, Town Clerk. (See "Machinery Wanted.")

Decatur, Ala.—Morgan county will construct 27½ miles macadamized roads; earth excavation, 66,641 cubic yards; bids to be opened April 12; Bullen & Ford are engineers. (See "Machinery Wanted.")

De Funiak Springs, Fla.—City will vote April 15 on issuance of \$5000 of bonds for street and park improvements. Address The Mayor.

Dothan, Ala.—City Council will consider ordinance providing for issuance of \$20,000 of bonds for street paving. Address The Mayor.

Easton, Md.—City will vote on issuance of \$50,000 of bonds for street improvements. Address The Mayor.

Fort Pierce, Fla.—St. Lucie county will vote April 20 on issuance of \$150,000 road bonds. Address County Commissioners.

Hickory, N. C.—City will vote on bond issue for street improvements. Address The Mayor.

Hondo, Texas.—Medina county will vote April 6 on issuance of \$40,000 road and bridge bonds. Address County Commissioners.

Jonesboro, Tenn.—Washington county has defeated \$150,000 bond issue for road improvements. Address County Commissioners. (Recently mentioned.)

Knoxville, Tenn.—Knox County Road Commission appropriated \$45,750 to repair roads; contracts will be awarded April 5.

Lehigh, Okla.—City has voted \$10,000 of bonds for street improvements. O'Neil Engineering Co., Dallas, Texas, will be in charge.

Little Rock, Ark.—I. P. Shelby of Little Rock has contract at \$31,000 to pave High street with brick; cement filler.

Montgomery, Ala.—City will pave sidewalks with hexagon tile or Schilling pavement, together with all necessary granite curbing, etc., of Grady, Moulton, Oak and other streets; also pave with clay gravel roadway of Forest avenue, together with necessary granite curbing, sewerage, etc.; bids to be opened April 5; Robert Tait, City Treasurer. (See "Machinery Wanted.")

Newport, Tenn.—Coke County Court authorized \$200,000 bond issue for road improvements; B. W. Hooper, secretary Pike Commission. (Recently incorrectly noted.)

Norfolk, Va.—Permanent Road Commission (Alvah H. Martin, M. G. Long and George W. Brown) decided to construct macadam road from city limits through Port Norfolk to water edge at Pinner's Point; estimated cost, \$25,000; commission ordered a survey of proposed route preparatory to advertising for bids for its construction; commission adopted resolution to complete construction of Jamestown boulevard, in Tanner's Creek

District, in accordance with specifications of State Highway Commissioner, Richmond, Va. It was decided to advertise for bids for building macadam road from Portsmouth to Deep Creek. Contract for building macadam road from Berkley to Great Bridge was awarded to I. J. Smith & Co. of Richmond; cost \$50,000.

Perry, Fla.—City voted \$15,000 bond issue for street improvements; John C. Calhoun, Clerk. (Recently mentioned.)

Rockwood, Tenn.—City is considering bond issue of \$20,000 for public improvements, including street work, city hall and improving efficiency of fire department and light plant. Address The Mayor.

### SEWER CONSTRUCTION

Canton, N. C.—City will lay sewer mains; J. N. Mease, Mayor; J. W. Scott, Town Clerk. (See "Machinery Wanted.")

Cuero, Texas.—City is arranging to install a sewerage system; engineer is preparing an estimate. Address The Mayor.

De Funiak Springs, Fla.—City will vote April 15 on issuance of \$8000 of sewer bonds. Address The Mayor.

Dothan, Ala.—City Council will consider ordinance providing for issuance of \$30,000 of bonds for extension of water, sewer and light systems. Address The Mayor.

Enid, Okla.—City will construct about 1500 feet of eight-inch vitrified-pipe sewer and about 1100 feet of six-inch vitrified-pipe sewer in extension to Sewer District No. 9; bids to be opened April 2; E. R. Lee, City Clerk. (See "Machinery Wanted.")

Ensley, Ala.—City voted \$75,000 of bonds for sanitary sewer system. Address The Mayor.

Galveston, Texas.—City will construct reinforced concrete drain along 26th street; will require 1450 linear feet of 3-foot 2-inch by 6-foot concrete drain, together with lateral connections and appurtenances; V. E. Austin, Commissioner of Streets and Public Property; A. T. Dickey, City Engineer. (See "Machinery Wanted.")

Louisville, Ky.—Henry Bickel Co. of Louisville reported as having submitted lowest bid for construction of Section A of Middlefork sewer; cost about \$50,000; J. B. F. Breed of Louisville is chief engineer. (Recently mentioned.)

Louisville, Ky.—Commissioners of Sewerage awarded contract to T. J. O'Connell, 2022 Alceanna St., Baltimore, Md., for construction of 12th-street sewer, contract No. 25; work consists mainly of constructing reinforced concrete sewer about 3900 feet long and from 16 feet to 27 feet deep, including about 3350 cubic yards of concrete, and 320,000 pounds of steel; cost about \$80,000. J. B. F. Breed is chief engineer, Louisville.

Norfolk, Va.—City will open bids March 26 for laying sewer and water pipes in portion of Sixth ward; W. T. Brooke, City Engineer. (See "Machinery Wanted.")

Orange, Texas.—City will vote in April on issuance of \$14,000 of bonds to purchase sanitary sewer system. Address The Mayor.

Perry, Fla.—City voted \$15,000 of bonds for sewer construction; John C. Calhoun, Clerk. (Recently noted.)

Ryan, Okla.—City will vote in about 30 days on \$69,000 bond issue recently noted; \$18,000 for sewer system; O'Neil Engineering Co., Dallas, Texas, engineer in charge; J. L. Henderson, chairman Board of Trustees.

Salem, Va.—Contract recently noted awarded to Salem Heating Co. of Salem, R. H. Carper, manager, is for addition to present city system; cost \$5000; work to commence in April.

Seymour, Texas.—City has voted sewerage system bonds. Address The Mayor.

South Jacksonville, Fla.—City will vote March 29 on issuance of \$50,000 of bonds for sewer and water systems. Address The Mayor. (Recently mentioned.)

Uvalde, Texas.—City will soon issue \$50,000 of bonds for sewerage system (recently mentioned) and other improvements; M. Burney, Mayor.

Washington, D. C.—Bids will be opened April 26 for constructing sewer in 14th street S. E.; H. B. F. McFarland and others, Commissioners D. C. (See "Machinery Wanted.")

### TELEPHONE SYSTEMS

Carthage, Tenn.—Mutual Home Telephone Co. incorporated by G. W. McDonald, G. W. Cornwell, J. C. Hesson and others.

Cornhill, Texas.—Cornhill & Gravis Telephone Co. incorporated with \$3000 capital stock by T. A. Crumlers, V. A. Harvill, B. A. Condra and others.

Doniphan, Mo.—Ripley County Mutual

Farmers' Telephone Co. incorporated with \$10,000 capital stock by J. F. Klenn, L. Harris and A. P. Russell.

Eureka Springs, Ark.—Greenwood & Winona Party Telephone Co. has 20-year franchise for telephone system.

Gainesville, Ga.—New Bridge Telephone Co. organized with Claud L. Thompson president, W. L. Awtry secretary and treasurer; will construct 12-mile telephone line.

Haymarket, Va.—Bull Run Telephone Co. incorporated with \$5000 capital stock; Wm. Beverley, president, Broad Run, Va.; Lee Howdershell, vice-president, The Plains, Va.; P. D. Brawner, secretary and treasurer, Broad Run, Va.

Lovingson, Va.—Rockfish Telephone Co. incorporated with \$5000 capital stock; H. T. Harris, president; Dr. J. C. Everett, vice-president; Thomas Boyce, secretary and treasurer.

Lovingson, Va.—Rockfish Telephone Co. incorporated with \$5000 capital stock to construct and operate telephone line from Lovingson to Waynesboro, 32 miles; authorized to build branch lines; H. T. Harris, R. F. D. N. 1, president; Dr. J. C. Everett, vice-president; Thos. Boyce, secretary-treasurer; principal office, Lovingson.

Woodbury, Tenn.—Home Telephone Co. incorporated by W. R. Estes, T. B. Clark, L. E. Barges and others.

### TEXTILE MILLS

Calhoun, P. O. at Hendersonville, N. C.—John Cox reported interested in plan to establish a knitting mill.

Chapel Hill, N. C.—Hosiery.—W. A. Ellington will establish Lois Hosiery Mill; has purchased 10-horse-power gasoline engine, 27 knitting machines, etc.; will soon add to equipment.

Concord, N. C.—Locke Cotton Mills Co. has awarded contract to rebuild Odell Mill No. 4, as reported lately; proposes ultimate equipment of 45,000 spindles; has ordered 12,000 spindles and optioned 12,000 additional; contractors for building, R. L. McAllister, Mt. Pleasant, N. C., and Ed M. Misenheimer, Concord.

Durham, N. C.—Sheeting, etc.—Erwin Cotton Mills Co. has selected West Durham as site of proposed additional mill detailed last month; will erect building 825 feet long, with spinning-room 200 feet wide and weaving-room 300 feet wide; standard mill construction; one story; other buildings to include warehouses and power plant; machinery will include 50,000 spindles, 1500 looms and accompanying equipment, producing converting gray goods and sheetings; 2000 electric horsepower will drive textile machinery; about \$1,000,000 to be expended; F. P. Sheldon & Sons, Providence, R. I., engineers in charge, preparing plans and specifications.

Easley, S. C.—Sheetings.—Easley Cotton Mills, J. M. Greer, president, has not finally decided upon addition reported in February; company will probably erect four-story 130 by 249-foot building and install 25,000 spindles, 600 looms, etc.; to be driven by electricity; Joseph E. Sirrine, Greenville, S. C., to be engineer in charge; present equipment 37,744 spindles and 1020 looms.

High Point, N. C.—Hosiery.—High Point Hosiery Mills will build dyehouse addition; brick construction; one story; 50x100 feet.

Jonesville, S. C.—Knit Goods.—Buel B. Reid is reported as to establish knitting mill.

Kannapolis, N. C.—Towels, etc.—Cannon Manufacturing Co. will install 300 looms in addition recently reported to be built; Stuart W. Cramer, Charlotte, N. C., is engineer in charge; company now operating 30,000 spindles and 900 looms.

Kernersville, N. C.—Woolen Blankets.—Crews Manufacturing Co. will rebuild woolen blanket mill reported burned at loss of \$20,000.

Lafayette, Ga.—Sheeting, etc.—Lafayette Cotton Mills awarded contract to Adams & Schneider, 120½ East 8th St., Chattanooga, Tenn., for construction of slasher-room lately mentioned; brick construction; one-story; composition roof; cost \$3000. Company will add 2000 spindles, 40 looms, etc.

Marion, N. C.—Marion Manufacturing Co. incorporated with capital stock of \$200,000 by D. D. Little of Spartanburg, S. C.; R. H. Bennett of Marion and others; to build mill lately noted; Jos. E. Sirrine, Greenville, S. C., will be engineer in charge.

Raleigh, N. C.—Hosiery.—Martin Hosiery Mill will, it is reported, triple plant; present equipment, 85 knitting machines, etc.

Rock Hill, S. C.—Denims.—Hamilton Carhartt Cotton Mills will, it is reported, build 140x140-foot addition, to be equipped with 400 looms; now operating 7488 ring spindles and 204 narrow looms.



Smithfield, N. C.—Hosiery Yarns.—Ivanhoe Manufacturing Co., lately reported incorporated, etc., plans to build mill of 5000 spindles for manufacturing warp and hosiery yarns—18s to 30s; will begin building construction April 15; in market for all necessary machinery; F. K. Broadhurst, general manager. (See "Machinery Wanted.")

St. Louis, Mo.—Hosiery.—Webb-Lynch Hosiery Co. incorporated with capital stock of \$20,000 to manufacture hosiery by Wm. B. Webb and others.

West Point, Ga.—Cotton Duck.—West Point Manufacturing Co. contemplates adding 10,000 spindles and 100 looms to Shawmut Mill; present equipment, 20,000 spindles and 300 looms.

Winchester, Va.—Cheviots.—C. A. Williams & Bros. will build addition to woolen cheviot mill; have not awarded any contracts; now operate 400 spindles, 8 looms, etc. (Reported in February as to double capacity.)

### WATER-WORKS

Alva, Okla.—City will vote April 6 on issuance of \$10,000 of bonds to extend reservoir. Address The Mayor.

Canton, N. C.—City will lay water mains; bids to be opened April 1; J. N. Mense, Mayor; J. W. Scott, Town Clerk. (See "Machinery Wanted.")

Cleburne, Texas.—Cleburne Water-Works Co. will issue \$50,000 worth of receivership certificates; proceeds will be used in laying mains and extending the water system.

Cleveland, Tenn.—City voted \$60,000 of bonds; \$50,000 to purchase plant of Cleveland Water Co. and \$10,000 for improvements and extensions; Charles S. Mayfield, Mayor. (Recently mentioned.)

De Funiak Springs, Fla.—City will vote April 15 on issuance of \$12,000 water-works bonds. Address The Mayor.

Dothan, Ala.—City Council will consider ordinance providing for issuance of \$20,000 of bonds for extension of water, sewer and light systems. Address The Mayor.

Eldorado, Ark.—Eldorado Light & Water Co., recently reported incorporated, has contracted for material for installation of water-works; C. S. Jackson, engineer in charge; J. P. Holmes, president of company; J. J. Hudson, vice-president; S. R. Morgan, secretary-treasurer.

Follansbee, W. Va.—Follansbee Water & Light Co., recently reported incorporated with \$25,000 capital stock, has organized with H. C. Meyer president, Thomas J. Mahan vice-president and C. B. Crawford secretary-treasurer; will erect building 16x32 feet; brick; ordinary construction; equipment will consist of gas engine and deep-well pumps that will force water from bottom of 90-foot well to top of 300-foot hill; proposals for machinery will be opened; plant will have capacity of 500 gallons of water per minute.

Hazlehurst, Ga.—City voted issuance of \$18,000 bonds for construction of water-works. Address The Mayor.

Jacksonville, Ala.—City voted issuance of \$12,000 of bonds for water-works; S. R. Wilkerson, Mayor. (Recently mentioned.)

Kansas City, Mo.—Fire and Water Board awarded contract to Allis-Chalmers Company, Milwaukee, Wis., at \$113,710, for 15,000-gallon pumping engine at Turkey Creek pumping station, and to A. M. Lockett Company, New Orleans, La., at \$20,636, for 25,000-gallon pumping engine at Quindaro (Kans.) pumping station. (Recently mentioned.)

Kiowa, Okla.—City voted \$31,000 water-works and electric-light bonds. Address The Mayor.

Lake Village, Ark.—City will open bids April 6 for erection of brick power-house and pump pit; 300-gallon power pump and 30-horsepower gasoline engine with accessories; 50,000-gallon hemispherical-bottom steel tank on tower 125 feet high, and three miles of four to eight inch mains, hydrants, valves, etc.; Lund & Hill, Little Rock, Ark., are consulting engineers. (See "Machinery Wanted.")

Lawton, Okla.—City will vote in April upon \$100,000 bond issue for water-works extension. Address The Mayor.

Lehigh, Okla.—City has voted \$42,500 of bonds for water-works. O'Neil Engineering Co., Dallas, Texas, will be in charge.

Lynchburg, Va.—Thomas F. Ryan of New York awarded contract to Lane Bros. Co., Alta Vista, Va., for construction of two reinforced concrete reservoirs and laying water mains; cost about \$20,000; one reservoir for 50,000 gallons and other for 200,000 gallons; plans by J. M. B. Lewis, Lynchburg. (Recently mentioned.)

McGehee, Ark.—Nicholas Peay, Little Rock, Ark., will prepare plans for \$20,000 water-works system to be constructed at McGehee.

Minco, Okla.—City will probably let contract early in April for material for and construction of water-works and electric-light plant recently mentioned; cost \$25,000 for both; plans, etc., with Burns & McDonnell, engineers, Kansas City, Mo. (See "Machinery Wanted.")

Mt. Pleasant, Tenn.—City Council adopted resolution asking Election Commissioners to call election to vote on issuance of \$65,000 of bonds for building water-works; propose to secure several springs located at distance of from 8 to 12 miles, from which adequate supply of water can be obtained by gravity pressure. (J. G. Jackson and F. De Marco, Mt. Pleasant, recently mentioned as having been engaged as engineers.)

Nashville, Tenn.—City awarded contract to W. M. Leftwich Co. of Nashville, at \$4543, to lay 25,780 feet of water mains.

Norfolk, Va.—City will open bids March 26 for laying sewer and water pipes in portion of Sixth ward; W. T. Brooke, City Engineer. (See "Machinery Wanted.")

Okemah, Okla.—City has voted \$55,000 of bonds for electric-light and water systems. Address The Mayor.

Port Arthur, Texas.—Port Arthur Water Co. will soon begin construction of proposed reservoir, to have concrete walls and bottom; will also double boiler-room capacity by installation of two 302-horse-power boilers, and is considering installation of 1000-horse-power turbine generator.

Richmond, Va.—City awarded contract to Piedmont Construction Co., Atlanta, Ga., at \$56,000, for 54-inch interior diameter circular reinforced concrete conduit, from settling basin to pump-house, to erect on present flume; new flume to have estimated delivery of water under average conditions of 41,300,000 gallons each 24 hours. Board of engineers has recommended resident engineer to be appointed to supervise construction; name has not been announced; Charles E. Bolling, City Engineer. (Recently mentioned.)

Ryan, Okla.—City will vote in about 30 days on \$69,000 bond issue recently noted; water-works, \$45,000; sewers, \$18,000; electric lights, \$6000; O'Neil Engineering Co., Dallas, Texas, engineer in charge; J. L. Henderson, chairman Board of Trustees.

Seymour, Texas.—City has voted issuance of water-works bonds. B. F. Rupe, secretary Board of Trade.

South Jacksonville, Fla.—City will vote March 29 on issuance of \$50,000 of bonds for water and sewerage systems. Address The Mayor. (Recently mentioned.)

Wynnewood, Okla.—City will extend plant; vote of \$14,000 of bonds for water-works and lighting plant recently noted; T. B. Rollow, Mayor. (See "Machinery Wanted.")

### WOODWORKING PLANTS

Denopolis, Ala.—Handles and Chair Stock. E. S. Wittel & Son will have proposed plant in operation in about three weeks; approximate investment, \$12,000; will manufacture fork, rake and hoe handles and chair stock; handle capacity, carload weekly—about 25,000 handles.

Huntingdon, Tenn.—Boxes, etc.—Huntingdon Wood Co. has increased capital stock from \$10,000 to \$25,000.

Houston, Texas.—Boxes.—Jones-Baker Manufacturing Co. incorporated with \$10,000 capital stock by F. Baker, E. E. Jones and W. B. Jones; will establish box factory and planing mill.

Jefferson City, Mo.—Handles, etc.—Missouri Handle & Manufacturing Co. incorporated with \$10,000 capital stock by T. R. and M. T. Clendinen and C. A. Loomis.

Little Rock, Ark.—Wagon Stock.—National Wagon Stock Co. will enlarge plant.

Rogers, Ark.—J. W. Robinson will establish box factory and planing mill.

### BURNED

Asheville, N. C.—Beaumont Furniture Co.'s store; building owned by Frank Loughran.

Baltimore, Md.—New York & Baltimore Transportation Co.'s warehouse on Reeder's wharf, at Hughes and Henry streets; loss on building, \$1500; Clarence Shriver, local agent.

Belair, La.—John Dymons, Sr.'s, sugar-house; loss about \$50,000.

Barlow, Ky.—Barlow Hotel; D. R. Crice's store building; loss \$5000.

Boydton, Va.—Buildings owned by A. Fine, S. J. Turpin & Co., M. A. Walter, J. W. Ed-

mondson, E. A. Rainey, A. T. Snellings, A. T. Holmes and Mrs. Gertrude Briggs; loss \$100,000.

Chester, S. C.—Jos. Wylie & Co.'s cotton warehouse.

Chevy Chase, Md.—Herbert Claude's residence and hay barracks; loss \$10,000.

Coster, P. O. Knoxville, Tenn.—Southern Railway Co.'s passenger station; loss about \$5000; D. W. Lunn, Washington, D. C., chief engineer.

Fort Smith, Ark.—Fagan Bourland's dwelling; loss \$10,000.

Gallatin, Tenn.—S. H. Simpson's warehouse; loss \$5000.

Gilmerston, Va.—A. N. Marshall's residence; loss \$3500.

Hillboro, Md.—J. M. Beavens' sawmill.

Humble, Texas.—C. Bender & Sons' drydock and dry lumber shed; loss \$25,000.

Hariburt, Ark.—P. O. Memphis, Tenn.—C. D. Bridges Lumber Co.'s sawmill plant; loss \$35,000.

Kansas City, Mo.—Carl A. Nilson's stable and planing mill; loss \$9000.

Kernersville, N. C.—J. F. Kerner's grist mill; Crews Manufacturing Co.'s woolen mill; loss \$20,000.

Knoxville, Tenn.—Harry Ritter's tobacco barn; loss on building, \$3000.

Largo, Md.—Manor house at Northampton, owned by Lord Fairfax, twelfth Baron of Cameron, of New York.

Lebanon, Tenn.—Universal Stock Food Co.'s plant, loss \$12,000; N. G. Robertson's warehouse, loss \$3000.

Lonsconing, Md.—Morgan's Opera-house; Louis Spier's store building, with Frank Phillips' printing office on ground floor; Eisenberg & Son's warehouse; total loss, \$40,000.

Louisville, Ky.—Union depot, used by Illinois Central; Southern terminus Cleveland, Cincinnati, Chicago & St. Louis; Southern Railway, Baltimore & Ohio Southwestern and Chesapeake & Ohio railroads; A. H. Egan of Louisville, superintendent Illinois Central Railroad; loss \$50,000.

Monticello, Ark.—Hinson College's dormitory; loss \$10,000.

New Roads, La.—Beauregard Olinde's wholesale store, loss on building, \$5000; Tony Piazza's store building, loss \$2200; Marius Jewell's saloon, loss \$10,000.

Newark, Ark.—Galloway Hotel.

Port Lavaca, Texas.—Seaside Hotel, owned by John B. Mahon.

Pruntytown, R. Station, Grafton, W. Va.—Keener & Son's flour and feed mill; loss \$4000.

Quincy, Fla.—Clynes Bros.' packing-house.

Scarbro, W. Va.—A. C. Poole Auger Co.'s plant; building owned by Stuart Blake; loss \$15,000.

Simms, Texas.—Rice elevator owned by H. J. Hauck & Co., Kansas City, Mo.; loss \$25,000.

Somerset, Ky.—Crescent Lumber Co.'s planing mill.

St. Charles, Mo.—J. H. Werner Milling Co.'s plant; loss \$15,000.

Suffolk, Va.—T. J. Whitfield's cotton gin; loss \$2500.

Sulphur Springs, Texas.—Planters' Ginning Co.'s plant; loss \$9000.

Texarkana, Ark.—Beech Street Baptist Church; loss \$30,000. Address The Pastor.

Weston, W. Va.—Bastow Manufacturing Co.'s plant; loss \$50,000.

Wilmore, Ky.—Asbury College's boys' dormitory, dining-room and music hall; loss \$40,000.

### DAMAGED BY FLOOD.

Parkersburg, W. Va.—St. John's Lutheran Church; loss \$20,000. Address Rev. W. H. Fehr, 1618 Covert St.

### DAMAGED BY STORM.

Brinkley, Ark.—National Coöperage & Woodenware Co.'s plant; loss \$15,000.

### BUILDING NOTES

#### APARTMENT-HOUSES

Alexandria, Va.—Cameron Apartment Co., A. S. Doniphan, president, recently noted incorporated to remodel building into apartment-house, will award contract April 1; fireproof structure; 51x100 feet; hot-water heat; electric and gas lighting; cost \$30,000; plans by Milton Dana Morrill, Corcoran Bldg., Washington, D. C.

Atlanta, Ga.—J. W. Goldsmith will erect two apartment-houses; pressed brick on

foundation of granite; site 101x200 feet; cost of both structures, \$60,000.

Charlotte, N. C.—Charlotte Land & Investment Co., J. Arthur Henderson, secretary, awarded contract to R. N. Hunter Company, Charlotte, for erection of apartment-house recently mentioned; two stories and basement; brick; tin roof; four five-room apartments, each with bath and servants' room; grates; gas and electric lighting; cost \$11,000; plans by F. L. Bonfoey, Charlotte.

Cumberland, Md.—David J. Lewis awarded contract to Cumberland Hydraulic Block & Stone Co., Charles F. Haller, president, for erection of three-story apartment-house of cement blocks.

Kansas City, Mo.—Thomas Wilson will erect apartment-house; four stories; brick; contain eight apartments; cost \$25,000.

Kansas City, Mo.—T. C. Mitchell, 3720 Warwick Bldg., had plans prepared by John H. Martling, Kansas City, for \$80,000 apartment-house recently mentioned; brick, stone and steel; 41x150 feet; 24 apartments; concrete floor; steam heat; electric and gas lighting. (See "Machinery Wanted.")

Montgomery, Ala.—Leopold Strauss has had plans prepared and will soon award contract for erection of apartment-house; frontage 100 feet; roof garden; elevators; cost \$40,000.

Paducah, Ky.—R. G. Terrell awarded contract to W. M. Karnes & Sons of Paducah at \$13,000 for erection of apartment-house.

Richmond, Va.—Henry Wallenstein and Richard Moore purchased site 65x100 feet; will erect store and apartment building; three or four stories.

Savannah, Ga.—H. O. Young, 112 Henry St. east, owner, will prepare plans for and erect two-story apartments recently mentioned; mill construction; 26x70 feet; maple flooring; hard pine oiled finish; grates; gas and electric lighting; cost \$4000 each.

St. Louis, Mo.—Mrs. Anna M. Doecke purchased site, 35x115 feet, on which to erect four and five-room apartment-house to cost \$6000.

St. Louis, Mo.—Charles Osburg purchased site with frontage of 30 feet, on which to erect apartment-house.

St. Louis, Mo.—F. A. Banister, 915 Olive St., will expend \$100,000 in erection of apartment-houses recently mentioned; plans by T. C. Lee; three buildings to be 62x55 feet and two 54x45 feet; ordinary construction; steam heat; electric lighting; refrigerators. (See "Machinery Wanted.")

Tampa, Fla.—Mrs. M. Cardy will erect apartment-house. H. M. Jones has contract at \$7500; A. H. Johnson is architect; both of Tampa.

Tulsa, Okla.—Oklahoma Architectural Co., prepared plans and specifications for proposed Montrose Flats; two stories; four apartments on each floor; each apartment to have laundry and open balcony; hardwood finish; cost \$10,000.

Washington, D. C.—Charles W. Irey, 123 Tennessee Ave. N. E., will erect apartment-house; three stories; contain six apartments of five rooms each; plans being prepared by N. T. Haller & Co., Corcoran Bldg.; contract awarded R. Z. Hazell, 148 11th St. S. E.; both of Washington.

Washington, D. C.—William H. McCray, building contractor, 321 Bond Bldg., adopted plans by Lepley & Nichols, architects, for apartment-house on T street between 17th and 18th streets; four stories; will contain seven apartments on each floor; brick and stone with terra-cotta trimmings; cost \$50,000.

Washington, D. C.—John T. Arms of Arms & Drury, 1311 G St. N. W., will erect apartment-house at 1509 15th street N. W.; seven stories; 50x100 feet; one suite of apartments on each floor, containing 12 rooms each; exterior walls of stone to second story and balance of brick with terra-cotta trimmings; plans by Averill, Hall & Adams, Washington.

### BANK AND OFFICE BUILDINGS

Bagwell, Texas.—First State Bank had plans prepared by James Rush, Bagwell, for \$3000 brick bank building; size 25x90 feet.

Baltimore, Md.—Bids will be opened April 2 for erection of proposed office building for Standard Oil Co. on Pratt-street end of pier No. 2; structure will be six stories; 100x100 feet; structural steel frame; concrete floor arches and partitions; first two floors to be used for storage and upper floors for offices; plans by Haskell & Barnes, 301 North Charles St., Baltimore. Bidders include William Ferguson & Bro., 214 Clay St.; Morrow Bros., 218 West Saratoga St.; John Waters, 23 East Centre St.; Thomas L. Jones & Son, 410 West Saratoga St.; Noel Construction Co., 36 U. S. Fidelity & Guaranty Co. Bldg., Calvert and German Sts., all of Baltimore; Thompson-

Starrett Company, Commercial National Bank Bldg., 700-706 14th St. N. W., and Geo. A. Fuller Company, Munsey Bldg., both of Washington, D. C.

Baltimore, Md.—Dime Savings Bank, 28 West Lexington St., awarded contract to Morrow Bros., 218 West Saratoga St., Baltimore, for improvements to building at 110 West Lexington street; will install fireproof vault; plans by Mottu & White, 611 Professional Bldg., Baltimore. (Recently mentioned.)

Baltimore, Md.—Clifton Savings Bank, 1059 North Gay St., awarded contract to James Farley, 43 Franklin Bldg., Baltimore, for erecting bank and office building at Broadway, Chase and Gay streets; frontage of 39 feet on Gay street and of 30 feet on each of other two streets; two stories; facade of selected press brick, with cut-stone trimmings and ornamental arched entrance; bank to occupy first floor, and upper floor for offices; banking portion to be fireproof, concrete floors and ceiling, and contain fire and burglar proof vault; plans by J. Edward Lafferty, 11 Pleasant St., Baltimore. (Recently mentioned.)

Brunswick, Md.—People's National Bank, G. W. Billmyer, cashier, will erect bank building; architect not selected; as proposed, one-story brick structure about 26x60 feet; electric lighting; heating not decided; cost from \$5000 to \$8000. (See "Machinery Wanted.")

Chestertown, Md.—Kent County Savings Bank will erect bank building; appointed building committee consisting of M. A. Toulson, J. D. Urie and others.

Cuthbert, Ga.—McPherson & Co. will erect bank and mercantile building. (See "Miscellaneous Structures.")

Houston, Texas.—The Texas Company reported to erect 12-story office building; site has frontage of 85 feet.

Jackson, Miss.—Bishop Theodore D. Bratton of Episcopal Diocese of Mississippi is considering erection of diocesan building adjoining St. Andrew's Church; to contain Sunday-school rooms, assembly hall, offices, etc.; cost \$80,000.

Nashville, Tenn.—Tennessee Packing & Stockyards Co. will erect \$5000 office building. (See "Canning and Packing Plants.")

Oklahoma City, Okla.—Thomas Campbell will erect five-story office building.

Plainview, Texas.—Donohoo & Ware awarded contract for erection of proposed three-story reinforced concrete building; part of first floor to be occupied by Citizens' National Bank. (See "Hotels.")

San Diego, Texas.—Charles Hoffman will erect two-story brick building; part will be occupied by San Diego Bank.

Saratoga, Texas.—State Bank awarded contract to Houston contractors for erection of brick building.

Spartanburg, S. C.—John B. and Jesse Cleveland will rebuild Cleveland Building recently reported burned at loss of \$30,000.

Sinton, Texas.—Sinton State Bank will open bids March 27 for erection of brick and stone bank building; plans and specifications at office of George D. McGiloin, Sinton, or of Alfred Giles, architect, San Antonio, Texas.

St. Louis, Mo.—Northwestern Savings Bank has let contracts for bank building to cost \$25,000. August Hoffmann is president.

Taylor, Texas.—City National Bank purchased Thomas Duffy brick store building for \$9000; new sanitary floorings will be laid and building will be remodeled for banking purposes.

Tulsa, Okla.—C. L. Reeder will expend \$40,000 on five-story addition to building recently mentioned; to be of concrete; fireproof; 60x75 feet; steam or hot-water heat; electric and gas lighting; plans by Oklahoma Architectural Co., Tulsa.

Winchester, Ky.—M. T. McEldowney awarded contract to J. W. Wheeler of Winchester for erection of office building; five stories and basement; ordinary fireproof construction; electric lighting; steam heat; elevator; estimated cost, \$25,000.

## CHURCHES

Anson, Texas.—Baptist congregation awarded contract to Thos. Velch, Waco, Texas, for erection of \$20,000 edifice; two stories; 70x70 feet; brick walls; ordinary construction; hot-water heating (for baptistry); electric lighting; plans by S. Herbert, Waco, Texas. (See "Machinery Wanted.")

Beaumont, Texas.—First Presbyterian Church will open bids about April 26 for erection of edifice recently mentioned; brick and steel structure; 96x75 feet; terra-cotta trimmings; hot-air heat; electric and gas lighting; cost \$20,000; plans by W. A. Cann, St.

Louis, Mo.; F. E. Robbins, chairman building committee, Box 1046, Beaumont.

Bessemer, Ala.—First Presbyterian Church awarded contract to Rogers & Coston of Bessemer at \$14,635 for erection of edifice; pressed brick trimmed in Indiana stone; auditorium separate from Sunday-school room; estimated cost, \$20,000; H. D. Breeding of Birmingham is architect and will supervise construction. (Recently mentioned.)

Birmingham, Ala.—St. John's Church will erect edifice to cost between \$60,000 and \$75,000; site has frontage of 190 feet. Address The Pastor, St. John's Methodist Episcopal Church South.

Birmingham, Ala.—Second Presbyterian Congregation purchased adjoining site of 141 feet front, giving total frontage of 241 feet; will make improvements to edifice, expending \$13,000; seating capacity of main auditorium, 600. Address The Pastor, Second Presbyterian Church.

Bolton, Ga.—Collins Memorial Church, Rev. Ben Graham, pastor, will erect edifice to cost \$2500; construction begun.

Brady, Texas.—Methodist Church will erect edifice; stone; cost \$15,000. Address The Pastor, Methodist Congregation.

Chattanooga, Tenn.—First Presbyterian Church, J. W. Bachman, pastor, 221 McCallie Ave., awarded contract to John T. Wilson, Richmond, Va., at about \$35,000 for completion of \$125,000 church previously mentioned; cream-colored brick; tile roof; copper-covered dome; marble columns in portico; tile flooring; quartered oak interior finish; terra-cotta trimmings; steel-truss support to roof; plumbing; electric and gas lighting; steam heat; plans by Chas. E. Bearden, Chamberlain Bldg., Chattanooga; McKim, Mead & White, 160 Fifth Ave., New York, associate architects; H. S. Probasco, American National Bank, chairman building committee.

Corpus Christi, Texas.—Methodist Church will erect edifice to cost about \$40,000. Address The Pastor.

Fairmont, W. Va.—Methodist Episcopal Church will erect edifice to cost between \$25,000 and \$50,000. Address The Pastor, Diamond Street Methodist Episcopal Congregation.

Fairmont, W. Va.—Baptist Church will erect edifice to cost between \$5000 and \$10,000. Address The Pastor, Palatine Baptist Congregation.

Gardenville, Station Baltimore, Md.—Robert C. Ullrich, 1516 Highland Ave., Baltimore, has distributed plans and specifications among contractors for remodeling and enlarging St. Anthony's Church building. Contractors estimating include J. J. Walsh & Son, 1525 Maryland Ave.; George A. Blake, 301 Law Bldg.; Edward Seikmann, 1808 North Chester St.; Frank Herbert, 2130 East Baltimore St.; Henry L. Maas, 906 Alsquith St.; Lorenz A. Schoenlein, 2217 East Baltimore St.; John J. Moylan of Moylan & Welch, 117 East Center St.; Rippel & Fisher, 800 North Duncan St., all of Baltimore; Andrew C. Huebler, Lauraville (Station Baltimore), and Christian Schratke, Raspeburg, Md.

Greensboro, Ga.—Methodist Church, Rev. W. H. Cooper, pastor, has begun erection of proposed edifice; foundations of gray stone; walls of brick with stone trimmings; cost about \$20,000.

Greenville, S. C.—Second Presbyterian Church, Rev. Dr. E. P. Davis, pastor, has distributed plans and specifications among contractors for erection of edifice; 100x80 feet; cost about \$21,500; plans by Edward Choute, Candler Bldg., Atlanta, Ga. (Recently mentioned.)

Huntingdon, Tenn.—Methodist congregation has plans by Hugh McGee, Jackson, Tenn., for edifice to cost \$7000.

Kansas City, Mo.—St. George's Episcopal Church will expend \$150,000 in erection of church proper, chapel, parish-house and rectory, to be grouped on quadrangular tract, 250x170 feet; church to have seating capacity of 900; plans by Howe & Holt, 315 E. 10th St., Kansas City. (Mentioned in February. See "Miscellaneous Structures.")

Knoxville, Tenn.—First Presbyterian Church awarded contract to John T. Wilson, Richmond, Va., for erection of edifice; cost \$218,000.

Kaufman, Texas.—First Baptist Church awarded contract to George Williams of Kaufman for erection of edifice; brick; cost \$15,000.

Lambert's Point, P. O. Norfolk, Va.—Burrows Memorial Church will erect edifice to cost about \$15,000; seating capacity, 700. Address The Pastor, Burrows Memorial Congregation.

Little Rock, Ark.—Second Baptist Church is considering plans for edifice; M. E. Dunnaway and J. H. Bilheimer chosen committee

to secure information on lighting, and A. W. Files and C. E. Taylor on heating.

Memphis, Tenn.—Strangers' Church will erect edifice. Address The Pastor, Strangers' Congregation.

Mout Washington, Station Baltimore, Md. Sacred Heart Catholic Church, Rev. Dr. Peter B. Tarro, pastor, contemplates erecting edifice to cost about \$15,000.

Paintsville, Ky.—Methodist Episcopal Church South awarded contract to C. W. True & Co., Marietta, Ohio, for erection of edifice; 57x96 feet; stone veneer; hot-water or steam heat; gas or acetylene lighting plant; estimated cost, \$24,740; plans by J. R. Gieske, Ceredo, W. Va.; C. A. Slaughter, chairman building committee. (See "Machinery Wanted.")

Spartanburg, S. C.—Baptist Church contemplates erecting church building on North Church street. Address Rev. R. E. Neighbour.

St. Petersburg, Fla.—Christian congregation will erect brick edifice. Address The Pastor, Christian Church.

Tampa, Fla.—Palm Avenue Baptist Church, Dr. A. S. Hettie, pastor, will erect brick edifice to cost \$30,000.

Tampa, Fla.—Baptist Church contemplates erecting edifice. Address The Pastor, First Baptist Congregation.

Waco, Texas.—Congregation Rodef Shalom accepted plans for synagogue to cost \$25,000; plans and specifications prepared by Scott & Lane of Waco; bids will soon be asked for construction. Address The Rabbi, Congregation Rodef Shalom.

Winston-Salem, N. C.—Burkhead Methodist Institutional Church awarded contract to Butler & Miller of Winston-Salem for erection of edifice recently mentioned; brick; electric lighting; cost \$3000; plans by W. L. Northrup, Masonic Temple, Winston-Salem; W. M. Biles, pastor.

Wadesboro, N. C.—Wadesboro Baptist Church awarded contract to W. T. Brasington, Wadesboro, for erection of annex and improvements to present building; annex 36x28 feet; brick; new seats and windows; cost of improvements \$4000; T. W. Chambliss, Pastor. (See "Machinery Wanted.")

## COURTHOUSES

Aberdeen, Miss.—First Methodist Church will have plans and specifications prepared by R. H. Hunt, Chattanooga, Tenn., for edifice; cost \$30,000. (Recently mentioned.)

Ablene, Texas.—Presbyterian Church, Wm. Thomas Logan, pastor, has not employed architect to prepare plans for \$20,000 edifice recently noted; structure to be of pressed brick, with Carthage stone trimmings; main auditorium, 500 seating capacity; Sunday-school rooms; parlor, study, etc.; to be completed January 1, 1910; Hon. J. M. Wagstaff, chairman building committee; contract awarded within 60 days; bids will be received. (See "Machinery Wanted.")

Fitzgerald, Ga.—Ben Hill county will award contract April 20 for erection of courthouse; two stories and basement; tower; fireproof; steam heat; electric lighting; cost \$50,000; plans by H. H. Huggins, Roanoke, Va. (Mentioned in December.)

Mocksville, N. C.—Davie County Commissioners awarded contract to Falls City Construction Co., Louisville, Ky., for remodeling courthouse and jail at Mocksville. (Recently mentioned.)

Monticello, Fla.—Jefferson county awarded contract to Mutual Construction Co., Louisville, Ky., at \$39,412, for erection of courthouse; plans by E. C. Rosford & Co., Eastman, Ga., and Bartow, Fla.; J. T. Budd, chairman of committee. (Recently mentioned.)

## DWELLINGS

Baltimore, Md.—William Merriken, 100 East Lexington St., will erect residence on Belvidere avenue.

Baltimore, Md.—Newbold & Sons, 334 Equitable Bldg., purchased site 270x138 feet at Lexington and Payson streets, and will erect row of dwellings.

Baltimore, Md.—T. F. Hare, 22 East Lexington St., has had plans prepared by Jacob F. Gerwig, 210 East Lexington St., for four dwellings on Windsor avenue, Walbrook; two stories, basement and attic; frame; slate roof; porches; steam and hot-water heat; cost \$15,000.

Baltimore, Md.—Frank Novak, 2800 Jefferson St., is having plans prepared by Joseph F. Hirt, 2800 Jefferson St., Baltimore, for 37 dwellings on Kenwood avenue; 15x45 feet; two stories; brick; cost \$55,000.

Baltimore, Md.—Edward Brady & Sons, 1109 Cathedral St., have had plans prepared by Jacob F. Gerwig, 210 East Lexington St.,

Baltimore, for five cottages on Fairview avenue; frame; two and a half stories; basement; 30x46 feet; slate roof; steam heat; cost \$18,000.

Baltimore, Md.—S. Narunsky, 147 North Exeter St., will erect 25 dwellings; 12 on Harlem avenue and 13 on Oakley street; two stories; brick; cost \$40,000.

Baltimore, Md.—Edward Gallagher, 2537 East Monument St., will erect five dwellings on Monument street; one 14x55 feet, one 13x46 feet and three 13x45 feet; two stories; brick; stone and cement foundation; tin roofs; furnace heat; cost \$3000.

Baltimore, Md.—George C. Goldman, Woodbourne Ave., has had plans prepared by Jacob F. Gerwig, 210 East Lexington St., Baltimore, for 15 dwellings on Hollins street; about 14x12 feet; two stories; foundation stone laid in cement; furnace heat; cost \$19,000.

Baltimore, Md.—Commercial Realty & Construction Co., Braddish avenue, has had plans prepared by Jacob F. Gerwig, 210 East Lexington St., Baltimore, for 16 dwellings on 5th street; about 15x44 feet; two stories; furnace heat; cost \$18,000.

Baltimore, Md.—Dr. Theodore Cooke and H. W. Cooke, both of 914 North Charles St., will erect eight dwellings on Collington avenue; two stories; brick; furnace heat; cost \$11,000.

Baltimore, Md.—Roland Park Co., Roland Park, will erect three dwellings on University Parkway; two and a half stories; one 40x35 feet; one 41x53 feet, and the other 38x48 feet; steam heat; cost \$42,000.

Baltimore, Md.—John F. Carter, Park Heights Ave. near Glenn Ave., will erect 12 dwellings on Bloomingdale road, Belmont avenue and 8th street, Walbrook; twin; two stories; brick; porches.

Baltimore, Md.—J. W. Smith awarded contract to George R. Morris, Equitable Bldg., Baltimore, for erection of residence; 26x28 feet; foundation heavy stone laid in cement; two stories and attic; large porch; slate roof; steam heat; cost \$4000.

Baltimore, Md.—Mrs. Charles W. Ireby, 123 Tennessee Ave. N. E., awarded contract to R. Z. Hazell, 145 Eleventh St. S. E., Washington, for erection of four dwellings on 16th street southeast; two stories; Colonial style; iron spot brick; laid in Flemish bond; white trimmings; slate roofs; front porches; frontage 16 feet each; plans by N. T. Haller & Co., Corcoran Bldg., Washington.

Baltimore, Md.—Mortimer W. West, 223 St. Paul St., will erect four bungalows on Granada avenue, Walbrook; one story; 25x46 feet; concrete-block foundation; steam heat; cost \$3000.

Baltimore, Md.—Strathmore Land & Improvement Co., Fidelity Bldg., awarded contract to Charles F. Gerwig, 809 Fidelity Bldg., Baltimore, for erection of number of dwellings at Strathmore; cottage type; two and a half stories; frame construction; slate roof; hot-water heat; electric lights; sanitary plumbing; plans prepared by Jacob F. Gerwig, 210 East Lexington St., Baltimore.

Birmingham, Ala.—P. G. Shook awarded contract to C. W. Brown for erection of proposed two-story brick and wood residence; ordinary construction; hot-air heat; electric lighting; cost \$10,000; plans by Miller & Martin, Birmingham.

Birmingham, Ala.—W. G. Robinson awarded contract to J. M. O'Rear for erection of two-story frame residence; ordinary construction; hot-air heat; electric lighting; cost \$3000.

Biles, Okla.—Miller Bros. have had plans prepared by Frank D. Hyle, Oklahoma City, Okla., for \$10,000 ranch-house; two and a half stories; Colonial style; porch on three sides.

Catonville, Md.—Victor G. Bloede of Victor G. Bloede Company, Caton Ave., near Frederick Ave. extended, is having plans prepared by Paul B. Tuzo, 11 E. Pleasant St., Baltimore, Md., for three cottages at Eden Terrace, Catonsville; two 32x36 feet; 11 rooms and bath; one 10 rooms and bath; cost \$8000 each.

Chattanooga, Tenn.—Charles D. Gordon will erect residence; brick; cost \$7500; construction has begun.

Chattanooga, Tenn.—Frank Spurlock, Times Bldg., Chattanooga, awarded contract to Edwards & Frankhouse, 813 Cherry St., Chattanooga, for brick work on residence at Riverview (suburb), recently mentioned; no general contract; other construction work to be under supervision of architects, Adams & Alsop, James Bldg., Chattanooga; brick structure; colonial; two stories, basement and attic; tile roof; hot-water heat; acetylene-gas lighting.

Chattanooga, Tenn.—Capt. J. P. Kindrick,



302 Walnut St., is receiving proposals through Chas. E. Bearden, architect, Chamberlain Bldg., Chattanooga, for erection of residence recently mentioned; two stories and basement; brick; composition roof; cement basement floor; concrete and tile porch; hard pine interior finish; cabinet mantels; hot-water heat; gas and electric lighting; plumbing; cost \$3500.

Cherrydale, R. F. D. from Rosslyn, Va.—Charles S. Trotter has had plans prepared by Harding & Upman, 729 15th St. N. W., Washington, D. C., for bungalow; one and a half stories; 11 rooms; cement-block foundation; frame covered with shingles.

Chestertown, Md.—Fred G. Usilton will erect residence.

Covington, La.—F. L. Coyle, New Orleans, La., awarded contract to P. S. Barelli, New Orleans, for erection of \$4000 residence at Covington.

Dickson, Tenn.—J. P. McEmore will build residence.

Durham, N. C.—W. J. Pettigrew will erect proposed two-story frame residence at cost of \$2500; ordinary construction; electric lighting; plans and construction by owner. (See "Machinery Wanted.")

East Lake, Tenn.—Mrs. J. F. Crawford awarded contract to Tom Ford, East Lake, for erection of one-story frame residence; shingle roof; hard pine interior finish; cabinet mantels; plumbing; electric lighting; cost \$3000. (Previously mentioned.)

Elm Grove, W. Va.—Charles A. Mull awarded contract to Walters & Sims, Elm Grove, for erection of seven-room residence.

Eufaula, Ala.—J. E. Methvin awarded contract to T. H. Adams, Birmingham, Ala., for erection of residence recently mentioned; ordinary construction; electric lighting; eight rooms; cost of this and another house now being erected, \$8000.

Fort Worth, Texas.—Sealed bids will be opened April 2 for erection of residence for superintendent of Masonic Widows and Orphans' Home near Fort Worth; plans and specifications on file at office of Flanders & Flanders, architects, Dallas, Texas, or at General Builders' Supply Co., Flatiron Bldg., Fort Worth.

Gainesville, Ga.—Mrs. O. P. Allen will erect 10-room residence.

Hagerstown, Md.—Dr. E. A. Wareham's residence, recently noted, will be remodeled by days' work under superintendence; plans by H. E. Yessler, Hagerstown; brick structure with brownstone trimmings; vapor heating; electric and gas lighting; conduit electric wiring; telephone system; hardwood floors; cost \$12,000 to \$15,000. (See "Machinery Wanted.")

Kansas City, Mo.—A. W. Peet has had plans prepared by Charles A. Smith and Frank S. Rea, Kansas City, for residence; three stories; red brick and white stone; slate roof; living-room on first floor will be finished in selected birch; bed chambers finished in bird's-eye maple, birch, poplar and oak; cost \$35,000.

Kansas City, Mo.—James H. Harkless will erect two \$12,000 residences.

Kansas City, Mo.—St. George's Episcopal Church is having plans prepared by Howe & Hoyt, 315 E. 10th St., Kansas City, for rectory. (See "Miscellaneous Structures.")

Knoxville, Tenn.—W. T. Clairborne will erect dwelling; frame and brick veneer; cost \$8000; plans by R. Graf, Knoxville; David Getatz & Son, contractors, Knoxville.

Lookout Mountain, Tenn.—Z. C. Patten, Chattanooga Medicine Co., awarded contract to Joseph Trimby, News Bldg., Chattanooga, for erection of proposed two-story-and-basement residence; stone and shingle siding; shingle roof; bathroom and terraces tiled; hard pine interior finish; plumbing; probably steam heat; electric lighting; size 40x80 feet; plans by Downing & Pringle, James Bldg., Chattanooga.

Macon, Ga.—Calder B. Willingham is having plans prepared by Curran R. Ellis, Macon, for residence; brick veneer; stone trimmings; colonial; two stories; cost \$10,000; bids to be opened within a few days.

Memphis, Tenn.—Frank F. Hill awarded contract to J. H. Moselage, Memphis, for erection of residence; two stories; brick and stone veneer; gravel roof; cost \$3500.

Memphis, Tenn.—Major Walker awarded contract to J. H. Ekdahl, Memphis, for erection of one-story frame bungalow; six rooms; cost \$4500, exclusive of heating, wiring and plumbing.

Memphis, Tenn.—M. B. Herman awarded contract to R. F. Green, Memphis, for erection of two residences; two stories; brick veneer; eight rooms; slate roofs; cost \$4830, exclusive of heating, wiring and plumbing.

New Orleans, La.—Mrs. Jaro Haulsh has had plans prepared by E. F. Sport, New Orleans, for residence; two stories; frame.

Oklahoma City, Okla.—George S. Ryan had plans prepared by and awarded contract to Edward T. Fries, Oklahoma City, for erection of residence recently noted; two stories and basement; nine rooms; buff brick veneer; hot-air heat; electric lighting; cost \$2500.

Oxford, N. C.—Graniteville Real Estate & Trust Co. will build six to eight room cottages, costing from \$1500 to \$3000 each; ordinary construction; electric lighting; plans and erection by company. (Recently mentioned.)

Prescott, Ark.—G. R. Hayne had plans prepared by Gibb & Sanders, Little Rock, Ark., for residence recently noted; 10 rooms; ordinary construction; cost \$5000.

Spartanburg, S. C.—W. S. Montgomery is having plans prepared by George F. Barber & Co., Knoxville, Tenn., for \$15,000 residence.

St. Petersburg, Fla.—H. J. Penrod, Bethany Beach, Del., will erect residence at St. Petersburg.

St. Louis, Mo.—Wheaton Realty Co. will erect 20 dwellings; two stories; brick; frontage 25 feet; construction under supervision of McNair & Harris Real Estate Co., St. Louis.

St. Louis, Mo.—Moses Schoenberg will erect residence; three stories; cost \$75,000.

St. Louis, Mo.—E. H. Simmons and George Simmons will erect two residences; 14 rooms; brick; cost \$25,000 each.

St. Louis, Mo.—Central Building Co. will erect two-story dwelling; cost \$25,000.

Tyron, Okla.—Millard Minshall will erect residence.

Tulsa, Okla.—Robert Galbreath will erect residence.

Tulsa, Okla.—W. H. Boeser will erect three dwellings; two stories; cost \$4000 each.

Tulsa, Okla.—C. G. Eaton will erect two dwellings; frame; cost \$3000.

Tuscaloosa, Ala.—E. B. Newsom is having plans prepared by George F. Barber & Co., Knoxville, Tenn., for \$12,500 residence.

Washington, D. C.—Louis Steerman awarded contract to Blakeny & Barnett, Washington, for erection of two dwellings on Calvert street N. W.; recently noted; three stories; brick; cost \$18,000; and one on 23d street N. W.; three stories; brick; cost \$5000; plans by A. H. Beers, 1333 G St. N. W., Washington.

Washington, D. C.—S. N. Widdup, 1206 G St. N. W., has had plans prepared by Lepkley & Nichols, Washington, for two dwellings in Shadyside; cost \$5000 each.

Washington, D. C.—Louis and Annie Steerman, 1235 Columbia Rd., awarded contract to Blakeley & Barrett, Takoma, Ind. Sta., Washington, for erection of three three-story dwellings recently mentioned; ordinary fireproof and steel construction; hot-water heat; gas and electric lighting; cost \$10,000; plans by A. H. Beers, 1333 G St. N. W., Washington.

## GOVERNMENT AND STATE BUILDINGS

Fort Sill, Okla.—Barracks, etc.—Provision has been made for construction of two barracks, band barracks, field officer's quarters, captain's quarters; battery, stables and shops, storehouse, stable guard, two gun sheds, hay shed, granary, wagon shed and coal shed; plans and specifications are being prepared and details will be announced in due time. It has been reported that about \$500,000 will be expended for these buildings and various other improvements. War Department, Office of Quartermaster-General, Washington, D. C., can give information.

Gadsden, Ala.—Postoffice.—Miles & Bradt, Atlanta, Ga., have contract at \$78,000 to erect U. S. postoffice at Gadsden. (Mentioned in January.)

Norfolk, Va.—Officers' Quarters and Office Building.—J. H. Brinson, Hampton, Va., is lowest bidder, at \$5740, for erection of brick quarters, and, at \$2470, for office building at Old Point for engineers' department; Major Joseph E. Kuhn, U. S. Engineer, in charge.

Portsmouth, Va.—Hospital.—J. E. & A. L. Pennock, Philadelphia, Pa., have contract to erect two additional wings to Naval Hospital at Portsmouth.

Staunton, Va.—Hospital.—Plans and specifications are invited for buildings for epileptic colony, to accommodate 300; William H. Landes and J. S. De Jarnette, special committee Western State Hospital, Staunton.

Vicksburg, Miss.—Hospital.—C. J. Edwards, chairman building committee, State Charity Hospital, will receive bids until March 31 for building annex according to plans and speci-

fications by W. A. Stanton, architect; plans and specifications on file at office of architect, 501 First National Bank Building, Vicksburg, from whom copies can be obtained on deposit of \$10; certified check, \$100. (Recently mentioned.)

## HOTELS

Baltimore, Md.—Sisters of Mercy, in charge of Mercy Hospital (formerly City Hospital), at Calvert, Saratoga and Courtland streets, will erect building for hotel and convent; plans by Frank E. Torney, 404 Wilson Bldg., Baltimore. (See "Miscellaneous Structures.")

Beeville, Texas.—W. Kohler is interested in erection of hotel to cost \$30,000.

Bluefield, W. Va.—Samuel Mats will erect hotel to connect with building now used by The Stag, providing total of 100 rooms; six stories; 50x12½ feet; steam heat; electric lighting; cold-storage machinery; private baths; all rooms to have stationary washstands and telephone service; passenger and freight elevators; main dining-room to seat 200; also four family or private party dining-rooms; cost \$50,000 to \$60,000; plans by W. E. & E. L. Shullebarger, Bluefield, W. Va.

Brinkley, Ark.—C. F. Greenlee will rebuild Brinkley Hotel, recently reported burned; building will be of brick, two stories high.

Foley, Ala.—Chicago Gulf Beach Co., H. B. Hamm, president, will erect hotel on Chicago Beach; reinforced concrete; about 200 rooms; steam heat; cost \$90,000.

Coupland, Texas.—H. L. Copeland will erect hotel; two stories; 14 rooms; construction begun.

Fort Worth, Texas.—Winfield Scott purchased three-story section of Hotel Worth, on lot 100x200 feet, for \$250,000; proposes to erect hotel.

Fort Worth, Texas.—Tiller estate awarded contract to American Construction Co., Houston, Texas, and Nashville, Tenn., for erection of hotel; seven stories; reinforced concrete; cost \$750,000, including furniture.

Galveston, Texas.—R. L. Bettison Fishing Pier Co. (recently noted), R. L. Bettison, 113 20th St., president and general manager, awarded contract to Chas. Funk, Galveston, for erection of building for fishing and hotel accommodation at Station 110, North Jetty, Galveston; two-story frame structure; 110x60 feet; 25 rooms; mill construction; carbide-gas lighting; gasoline engine for pumping water; cost \$10,000.

Kansas City, Mo.—Powell & Moore will erect hotel; three stories; 64x117 feet; cost \$25,000.

Marion, N. C.—Marion Hotel Co., J. H. Gray, secretary, incorporated with \$50,000 capital stock to erect hotel recently mentioned; plans by J. M. McMichael, Charlotte, N. C. (See "Machinery Wanted.")

Memphis, Tenn.—Phil H. Lewis, W. A. Bickford, S. R. Corbitt, Frank L. Monteverde and L. J. Monteverde will incorporate company to erect hotel and theater building; are considering plans by Eely & Weller of Memphis for remodeling Shelby County Courts; roof to be utilized for roof garden; 100 rooms, with office space in basement.

Mobile, Ala.—Miss Margaret Hickey, owner of Bleaville Hotel, has been in consultation with Charles B. Glennon & Co., agents, and with Charles B. and J. H. Hervey with regard to contemplated improvements, to include redecoration of exterior, marble steps and entrance from St. Francis street; stationary washstands in all rooms; Messrs. Hervey will have charge of redecoration of interior; to expend \$10,000.

Plainview, Texas.—Donohoo & Ware awarded contract for erection of proposed building; three stories; reinforced concrete; part of first floor to be occupied by Citizens' National Bank; remainder for hotel; hotel will be provided with steam heat, electric lighting, telephone in each room, etc.

Troy, Ala.—Troy Realty Co. will erect \$50,000 hotel.

## MISCELLANEOUS STRUCTURES

Asheville, N. C.—Clubhouse.—Country Club has had plans prepared by R. S. Smith, Asheville, for proposed \$4000 clubhouse.

Austin, Texas.—Y. M. C. A. Building.—University Young Men's Christian Association awarded contract to Fischer & Lamble, Austin, for brick and stone association building, recently mentioned; contracts for wiring, heating and plumbing not awarded; cost \$5000; plans by George A. Endress, Bosche Bldg., Austin.

Baldwin, La.—Lodge Building.—Woodmen of the World will erect lodge building; two stories; cost \$5000.

Baltimore, Md.—Hospital.—Sisters of Mercy have had plans prepared by Francis E. Tor-

mey, 404 Wilson Bldg., Baltimore, for improvements to Mercy Hospital (formerly City Hospital), at Calvert, Saratoga and Courtland streets, including erection of ward building and hotel building; ward building to be joined to main building; six stories, basement and cellar; cellar to be used for boiler and engine rooms, ice plant, bakery and vegetable storage; hardwood finish. To connect the two buildings present structure will be altered; new building to be facsimile of present hospital; hotel building will be six stories, basement and cellar; French Renaissance; steep front roof terminating with roof garden; exterior finished with iron-spot brick; brownstone trimmings; slate roof; chapel on third floor, extending entire length of building; vaulted ceiling; sanctuary in west end; high altar and two small altars; windows of cathedral glass; seating capacity, about 200; buildings will be fire-proof; steel, concrete and brick construction; cost \$500,000.

Baltimore, Md.—Children's Hospital.—Johns Hopkins Hospital, John C. Thomas, treasurer, Calvert Bldg., has had plans prepared by Wyatt & Nolting, Keyser Bldg., Baltimore, for proposed Harriet Lane Hospital for Children to be erected on grounds of Johns Hopkins Hospital, at Broadway and Monument street; four stories, including basement; roof garden for treatment of tuberculosis; cost \$200,000.

Baltimore, Md.—Hospital.—Johns Hopkins Hospital, John C. Thomas, treasurer, Calvert Bldg., is having plans prepared by Grosvenor Atterbury, New York, for proposed Phipps Psychiatric Clinic on Wolfe street; five stories; brick and stone; concrete foundation; 175x200 feet.

Charlotte, N. C.—Clubhouse.—Southern Manufacturers' Club has awarded contract for clubhouse as follows: T. C. Thompson & Bro., Birmingham, Ala., and Charlotte, for construction; Acme Plumbing Co., Charlotte, for plumbing; B. Mackenzie, Greensboro, N. C., for steam heating; Otis Elevator Co., Philadelphia, Pa., for passenger and freight elevators; cost \$60,000; plans by Hook & Rogers, Charlotte. (Recently mentioned.)

Clarksdale, Miss.—Lodge Building.—B. P. O. Elks have accepted plans by Keenan & Weiss, New Orleans, La., for proposed lodge building; cost \$25,000. (Recently mentioned.)

Cumberland, Md.—Y. M. C. A. Building.—Baltimore & Ohio Railroad, J. E. Greiner, consulting engineer, B. & O. Bldg., Baltimore, Md., awarded contract for addition to Y. M. C. A. building, to cost \$15,000; present building will be remodeled.

Cuthbert, Ga.—Mercantile Building, etc.—McPherson & Co. will repair structure damaged by storm, and will also erect new bank and mercantile building 27x90 feet in size; ordinary construction; electric lighting; days' work. (See "Machinery Wanted.")

Cuthbert, Ga.—Store Building.—Gunn & Shaffer will erect two brick store buildings to replace those recently reported damaged by storm.

Cuthbert, Ga.—Store Building.—J. E. Martin will rebuild store building recently reported damaged by storm; new structure to be brick; construction has begun.

Cuthbert, Ga.—Store Building.—Curry & Co. will erect store building to replace structure recently reported damaged by storm.

Dallas, Texas.—Dallas Golf & Country Club is preparing to erect clubhouse to cost \$35,000; will lay out golf course of 6000 yards, with 18 holes; Golf Realty Co. incorporated to finance erection of building, etc.

Dublin, Ga.—Grocery.—J. O. Barnes will erect wholesale grocery building recently mentioned; semi-fireproof; 35x100 feet; seven-foot cellar; two stories; electric lighting; elevator of one-ton capacity; will not employ architect. (See "Machinery Wanted.")

Greenville, S. C.—Business Building.—W. C. Cleveland will erect three-story business building.

Griffin, Ga.—Jail.—Commissioners of Roads and Revenues, Masonic Temple, Griffin, Spalding county, will open bids April 10 for erection of stockade and hospital for convicts; stockade to be one story; frame; metal roof; to stand on four brick piers four feet high; 20x148 feet; hospital to be one story; frame; metal roof; 16x20 feet; construction same as stockade; plans and specifications on file at office; W. E. H. Searcy, Jr., clerk.

Houston, Texas.—Business Building.—Theodore Keller awarded contract to John Stadler, Houston, for erection of business building; plans by R. D. Steele, Houston.

Houston, Texas.—Business Building.—Wall & Stabe awarded contract to C. H. Winn, Houston, for erection of building for stable and undertaking establishment; two stories; 105 feet frontage; cost \$12,000.

Jackson, Miss.—Hospital.—Jackson Hospital & Sanitarium Co. incorporated with \$50,000 capital stock by Julius Crisler, S. H. McLean, E. H. Galloway and others; will erect two-story pressed-brick sanitarium of ordinary fireproof construction; hot-water heat; cost \$15,000; to contain 30 beds; J. F. Barnes, Jackson, Miss., architect.

Kansas City, Mo.—Store and Hall Building.—John A. Ford has had plans prepared by Edgar C. Farris, Kansas City, for store and hall building; two stories; brick; 40x80 feet; cost \$18,000.

Kansas City, Mo.—Store and Office Building.—Warren D. House has had plans prepared by Horace La Pierre, Kansas City, for store and office building; three stories; brick; 24x100 feet.

Kansas City, Mo.—Parish-house.—St. George's Episcopal Church has had plans prepared by Howe & Hoyt, 315 E. 10th St., Kansas City, for parish-house, rectory, chapel and church building, to cost \$150,000; parish-house and rectory will be erected first and utilized until church proper is erected; all four buildings will be grouped around quadrangle 250x170 feet, with open court; parish-house will have auditorium with gallery, seating capacity 600; classrooms, choirroom, kitchen and study. (See "Churches.")

Kingsville, Texas—Barn.—Mrs. H. M. King awarded contract for erection of \$12,000 concrete barn.

Lampasas, Texas—Store Building.—Barnes & Little will erect store building; stone; 37x60 feet.

Laurel, Miss.—Business Block.—L. M. Jones will erect business block.

Laurel, Miss.—Stable.—T. L. Lee will erect three-story brick livery stable.

Lynchburg, Va.—Store Building.—John P. Pettyjohn will erect three-story store building.

Memphis, Tenn.—Store and Apartment Building.—W. E. Lacey awarded contract to Henry Johnson, Memphis, for erection of store and apartment building; two stories; brick; cost \$7250.

Memphis, Tenn.—Scottish Rites Cathedral. John Chester Lodge of Perfection, A. A. S. R. Masons, awarded contract to Selden-Breck Construction Co., Memphis, for erection of Scottish Rite Cathedral; plans by Jones & Furlinger and Houcker & Cairnes, Memphis.

Monticello, Fla.—Jail.—Board of County Commissioners, Jefferson county, will receive tentative bids, to be filed with Clerk of Circuit Court of Jefferson County, until May 5 for erection of proposed county jail; plans and specifications on file at office of said clerk after April 21; certified check for 10 per cent. amount of bid; J. T. Budd, chairman Board of County Commissioners.

Monticello, Fla.—Jail.—Jefferson County Board of Commissioners, J. T. Budd, chairman, contemplates erection of \$10,000 jail building to replace structure recently burned; tentative sealed bids are invited according to plans and specifications on file in office of County Clerk R. C. Parkhill, Monticello, after April 21; bids to be opened May 5; certified check for 10 per cent. of amount of bid.

Muskogee, Okla.—Bids will be opened April 1 for erection of business building for Graham Sykes & Co.; five stories; 100x100 feet; plans on file and bids received at office of Ashby, Radford & Niemann, 206 Estes Bldg., Muskogee.

Nashville, Tenn.—Clubhouse.—Nashville Athletic Club will erect clubhouse to replace present structure; three stories; Bowling Green stone front; concrete handball court, finished in enamel; marble swimming-pool, 40x75 feet; two needle showers, one electric shower, eight plain showers; 12 bathtubs; bowling alley, gymnasium, etc.; cost \$50,000.

Ocala, Fla.—Lodge Building.—Ocala Masonic Lodge will erect combined lodge and theater building; three stories; stone and concrete; cost \$15,000.

New Orleans, La.—Store and Office Building.—Samuel Levy will erect two-story brick store and office building.

Oklahoma City, Okla.—Stores, etc.—J. J. Culbertson awarded contract to W. J. Wylie for erection of two-story brick building recently noted; stores and offices; ordinary construction; 40x140 feet; natural-gas heating; electric lighting; cost \$25,000; plans by J. J. Culbertson, Jr.

Orlando, Fla.—Business Block.—J. B. Magruder will erect business building; two sections, 300 and 100 feet long; in form of arcade; lower floor will contain 30 stores; upper floor, apartments and offices.

Pensacola, Fla.—Clubhouse.—Progress Club has had plans prepared for clubhouse; two stories; cost \$20,000.

Richmond, Va.—Business Block.—Henry

Wallerstein and Richard Moore will erect business block; site 65x100 feet; three or four stories.

Richmond, Mo.—Poorhouse.—Ray county has voted \$25,000 of poorhouse bonds. Address The Mayor. (Recently mentioned.)

Roanoke, Va.—Market and Theater.—Will H. Horton will erect market building with theater above.

San Antonio, Texas—Furniture and Carpet Store.—G. A. Stowers will expend \$50,000 in construction of store building recently mentioned; plans by C. V. Senter, San Antonio; six-story building; 86½x61½ feet; mill construction; electric freight and passenger elevators; bids opened March 29. (See "Machinery Wanted.")

San Diego, Texas—Business Building.—A. L. Mull & Son will erect business building; two stories; brick.

Searcy, Ark.—Jail.—Bids will be opened April 6 for repairing and enlarging White county jail; certified check for \$500; plans and specifications on file at office of R. W. Crisp, County Judge, Searcy.

Selma, Ala.—Business Building.—Eliasberg Bros. will erect two or three story business building.

South Pittsburg, Tenn.—Mercantile Building, etc.—W. H. Wilson is having plans prepared by R. B. Patton & Son, Times Bldg., Chattanooga, Tenn., for combined mercantile building and opera-house; 50x140 feet; concrete blocks; composition roof; front 50x40 feet; two stories; two stores on grade floor and offices above; opera-house in rear, 50x100 feet, reached by hall extending between stores; plumbing; electric lighting; hot-air heat in opera-house; construction by owner. (See "Machinery Wanted.")

St. Louis, Mo.—Commercial Building.—St. Louis Provident Association will erect commercial building; four stories; brick and stone; cost \$30,000.

Trinity, Texas—Business Building.—R. T. Walker awarded contract to W. A. Norris, Crockett, Texas, for erection of two-story brick business building to replace structure recently reported burned, also for erection of one-story brick business building; cost \$3383.

Tulsa, Okla.—Business Block.—Robert Galbreath will erect business block.

Tulsa, Okla.—Business Building.—A. Y. Boswell will erect addition to business building; brick; cost \$3500.

Washington, D. C.—Business Building.—Edward B. Dean of Pennsylvania is having plans prepared by B. F. Meyers, Bond Bldg., Washington, for business building at 1210 G street N. W.

Washington, D. C.—Clubhouse.—Bachelor's Lawn Tennis Club, Ralph W. Hills, Colorado Bldg., president, is having plans prepared by Wood, Donn & Deming, 808 17th St. N. W., Washington, for clubhouse, with 15 tennis courts.

Washington, D. C.—Home.—Epiphany Church awarded contract to William P. Lipscomb & Co., 1405 F St. N. W., Washington, for addition to home at 1221 Massachusetts avenue N. W.; fireproof; three stories; pitch roof covered with slate; cost \$32,000; plans by F. H. Brook, Washington.

Washington, D. C.—Store and Apartment Building.—Vincent Vaccaro, 74 Fourth St. N. W., has had plans prepared by Lepage & Nichols, 467 H St. N. W., Washington, for store and apartment building at Sixth and H streets northeast; 20x55 feet.

Williamsburg, Ky.—Business Building.—E. S. Moss will erect brick business building.

Winnboro, Texas—Sanitarium.—Dr. W. L. Baber will erect brick two-story sanitarium.

### MUNICIPAL BUILDINGS

Alva, Okla.—City Hall and Jail.—City will vote April 6 on issuance of \$7000 city hall and jail bonds. Address The Mayor.

Baltimore, Md.—Library.—Enoch Pratt Free Library, Bernard C. Steiner, librarian, Mulberry near Cathedral St., will erect branch library on triangular lot at Fayette and Patuxent streets and Philadelphia road; cost \$25,000.

Berkley, Va.—Police and Fire Station.—Berkley Ward Improvement Committee contemplates erecting police and fire station.

Clifton Forge, Va.—City Hall.—City will erect municipal building. Address The Mayor.

Durham, N. C.—Theater and Market.—Board of Aldermen ordered rebuilding of burned Academy of Music and City Market. There will be no further negotiations as to erection of county courthouse and municipal building, County Commissioners having passed resolutions opposing it; theater will have ground-floor auditorium with two galleries; south end will be used for Recorder's

Court; cost \$20,000; City Market will be erected in another portion of city; will be single story, pressed brick, and cost \$20,000. Address The Mayor. (Recently mentioned.)

Enid, Okla.—Fire Department Building.—City accepted plans and invites bids on erection of fire department building; 70x140 feet; first floor to contain fire department equipment and upper floor city offices, etc. Mr. Sexton, City Engineer.

Richmond, Va.—Storehouse and Shop.—Office of Superintendent City Water Works, City Hall. Sealed proposals will be received until April 14 for erection of two-story brick storehouse and shop in pipe yard of city water-works, at Canal and Madison streets; proposals to be addressed to Committee on Water. Plans, specifications and information can be obtained at above office; certified check for \$100; E. E. Davis, superintendent.

Rockwood, Tenn.—City Hall and Fire Department.—City considering erection of city hall and improvements to fire department. Address The Mayor. (See "Road and Street Improvements.")

Union, S. C.—Firehouse.—City will soon award contract for erection of firehouse. L. L. Wagon, Mayor.

University City, P. O. St. Louis, Mo.—City Hall.—City has passed ordinances and will vote on issuance of \$70,000 city hall bonds. Address The Mayor.

Warren, Ark.—Library.—Carnegie Library plans, recently noted to be prepared by M. M. Alsop, Charleston, Miss., provide for building of 60-foot frontage, 78-foot back; colonial; large stone columns; step and sill courses stone faced with pressed brick; steam heat; lighting not decided; cost \$15,000; date of opening bids not settled.

West End, P. O. Birmingham, Ala.—Library, etc.—City Clerk opened bids March 23 for erection of Carnegie Library building; cost not to exceed \$15,000, and of city hall and fire-department building, not to exceed \$5000.

### RAILWAY STATIONS

Alexandria, La.—St. Louis, Iron Mountain & Southern Railway (Missouri Pacific system) awarded contract to James L. Powell, St. Louis, Mo., for erection of depot at Alexandria. (Recently mentioned.)

Brinkley, Ark.—St. Louis Southwestern Railway, M. L. Lynch, chief engineer, Tyler, Texas, reported as having plans prepared for brick freight depot to cost \$5000.

Johnson City, Tenn.—Carolina, Clinchfield & Ohio Railway, M. J. Caples of Johnson City, chief engineer, awarded contract to John Pettyjohn & Co., Lynchburg, Va., for erection of freight depot; brick and concrete; 60x200 feet.

Memphis, Tenn.—Southern Railway, D. W. Lum, chief engineer, Washington, D. C., reported considering erection of depot at Memphis.

Waco, Texas.—St. Louis Southwestern Railway, M. L. Lynch, chief engineer, Tyler, Texas, will erect fireproof concrete depot 540 feet long at Waco. (Recently mentioned.)

Washington, D. C.—Pennsylvania Railroad, Alex. C. Shand, chief engineer, Broad Street Station, Philadelphia, Pa., has submitted plans to Commissioners for substation at 7th and C streets N. W.; underground passageway will connect waiting-room with train platform; cost about \$25,000.

### SCHOOLS

Ada, Okla.—City awarded contract at \$27,000 to T. A. Lindsey, Commerce, Texas, for erection of proposed high-school building. Address The Mayor.

Alexandria, La.—City has accepted plans by Favrot & Livaudais, 839 Gravier St., New Orleans, La., for proposed school building; 12 rooms, with auditorium and basement; ordinary construction; low-pressure steam heat; electric lighting; cost \$40,000 to \$45,000.

Alva, Okla.—City will vote April 6 on \$25,000 bond issue to erect school building. Address The Mayor.

Ardmore, Okla.—City will vote April 27 on \$100,000 bond issue to erect high-school building. Address The Mayor. (Recently noted to vote March 23.)

Atmore, Ala.—City will issue \$13,000 of bonds to erect high-school building. Address The Mayor.

Baltimore, Md.—City awarded contract at \$110,000 to Noel Construction Co., Calvert and German streets, Baltimore, for erection of school building at Mulberry & Payson streets, recently mentioned; plans by Theodore Wells Pietsch, American Bldg., Baltimore.

Bowersville, Ga.—City will vote April 6 on \$10,000 bond issue for school improvements. Address The Mayor.

Canton, N. C.—S. C. Liner, Waynesville, N. C., has prepared plans for \$15,000 school building recently noted to be erected.

Catonsville, Md.—Board of County Commissioners, Towson, Md., has accepted plans by William A. Ehlers and Wm. F. Wagner, Catonsville, for high-school building at Catonsville; granite; slag roof; Elizabethan style; 116x100 feet; semi-fireproof; brick; stone trimmings; two stories and basement; 14 classrooms, each 24x30 feet; assembly hall, 45x70 feet, with seating capacity of 600; teachers' rooms, cloakrooms, lavatories and ante-rooms; first floor to have elevation of seven feet; low-pressure gravity circulating steam heat; cost \$55,000; will probably open bids about May 1. (See "Machinery Wanted." previously mentioned.)

Charleston, W. Va.—City has voted \$80,000 of bonds for school improvements. Address The Mayor.

Culpeper, Va.—Emery & Henry College awarded contract to I. C. Abbott Construction Co., Culpeper, for erection of proposed \$20,000 addition to college.

Dothan, Ala.—City will issue \$25,000 of bonds to erect high-school building. Address The Mayor.

Durant, Okla.—Durant Presbyterian College will erect \$60,000 main building.

Ensley, Ala.—City will vote on \$100,000 bond issue to erect school buildings. Address The Mayor.

Hazlehurst, Ga.—City has voted \$12,000 of bonds to erect school building. Address The Mayor.

Jonesboro, P. O. Bessemer, Ala.—City has voted \$30,000 of school bonds. Address The Mayor. (Recently mentioned.)

Knoxville, Tenn.—S. B. Beaumont, Knoxville, is lowest bidder at \$8800 for erection of McMillan school building, recently mentioned; two stories and basement; gray pressed brick; colonial style; furnace and ventilating systems in basement; three entrances; electric lights; plans by Gredig & Lynn, Knoxville.

Lagrange, Texas.—City will vote in May on \$17,500 bond issue to erect school building. Address The Mayor.

Lineville, Ala.—City has voted \$15,000 of bonds for school improvements. Address The Mayor.

Lula, Ga.—City will issue \$5000 of bonds for erection of school building. Address The Mayor.

McGehee, Ark.—City is preparing to erect \$15,000 school building. Address The Mayor.

Meridian, Miss.—Mrs. E. H. Mart will erect School of Music building; concrete blocks; about 10 rooms; cost \$7000.

Montgomery, Ala.—City will erect \$10,000 school building; George Bryer, Mayor.

Monticello, Ark.—Hinemon College will rebuild dormitory reported burned; loss \$10,000.

Newberry, S. C.—City contemplates issuing \$40,000 of bonds for school improvements. Address The Mayor.

Norman, Okla.—Regents of State University having tentative plans prepared by Shepley, Rutan & Coolidge, Boston, Mass., and Chicago, Ill., for \$200,000 administration building; 300x100 feet; two stories and basement.

Pontotoc, Miss.—City awarded contract at \$20,875 to Union Lumber Co., New Albany, Miss., for erection of school building recently mentioned; two stories; brick; galvanized-iron shingle roof; steam heat; plans by R. H. Hunt, Chattanooga, Tenn.

Poplarville, Miss.—Pearl River County Agricultural High School awarded contract to Campbell & Hart, Poplarville, for erection of school building and dormitory. (Recently mentioned.)

Raleigh, N. C.—Agricultural & Mechanical College will award contract April 20 for erection of dormitory buildings; three stories; brick with stone trimmings; 193x63 feet; semi-fireproof; steam heat; electric lighting; cost \$50,000; plans by H. P. S. Keller, Raleigh.

Redbay, Ala.—City will issue \$5000 of bonds to erect school building. Address The Mayor.

Rockwood, Tenn.—City will probably vote on \$15,000 bond issue to erect school building. Address The Mayor.

Ruston, La.—City contemplates issuing \$75,000 of bonds to erect school building. Address The Mayor.

Shreveport, La.—Caddo parish will receive plans until April 1 for high-school building recently mentioned; three stories and basement; brick; indirect heating system; electric and gas lights; foundry-room, machine shop, woodwork and demonstration-room, paintroom, sheet-metal room, domestic science section with kitchen; swimming-pool, etc., in basement; cost \$90,000; details of in-



formation to be furnished by C. E. Byrd, superintendent of School Board.

Spring Hill, Ala.—Spring Hill College awarded contract to Jett Bros. Contracting Co., Mobile, Ala., for erection of three-story addition to main building to replace burned structure; supports to galleries will be reinforced concrete; steel lockers; cost \$70,000; bids will soon be asked for erection of chapel; plans by A. H. Downey, Mobile, Ala.

University City, P. O. St. Louis, Mo.—City will issue \$35,000 of bonds for school improvements. Address The Mayor.

Valiant, Okla.—City awarded contract to Murry & Wallace for erection of \$9000 school building; two stories; 50x80 feet; ordinary construction; plans by Glenn Bros., Hugo, Okla.

Vinita, Okla.—City will vote on \$60,000 bond issue; \$52,000 to erect high school and \$8000 to erect ward school building. Address The Mayor.

Willmore, Ky.—Asbury College, Newton Wray, dean, will rebuild structures reported burned; loss \$40,000.

## THEATERS

Baltimore, Md.—Sigmund Lubin, Philadelphia, Pa., proprietor of Lubin's Theaters, 404 to 410 East Baltimore St., Baltimore, is considering plans for erection of three-story theater, to have seating capacity of 1500, to replace present structures; probable expenditure, \$150,000. (Recently mentioned.)

Baltimore, Md.—A. Lowther Forrest, Professional Bldg., Baltimore, has completed and distributed plans among contractors for estimates for remodeling first floor of Dime Savings Bank as moving-picture theater. Bidders will include John Cowan, 106 West Madison St.; John McIver of McIver & Piel, 2315 Edmondson Ave.; Henry L. Maas, 906 Alsquith St.; Charles L. Stockhausen, National Marine Bank Bldg., and Engineering-Contracting Co., 207 American Bldg., all of Baltimore.

Baldwin, La.—Morris Camp No. 330, Woodmen of the World, awarded contract to Frank Zylicz, Franklin, La., for erection of opera-house and store building; two stories; frame; upper floor to be used as opera-house; seating capacity 400; gallery on front and sides; cypress; iron roof; acetylene gas lighting; cost \$6000; plans by contractor.

Baltimore, Md.—George R. Sumner, Eastern Ave. and 3d St. E., reported to build moving-picture theater at 2431 York road; one story; 20x90 feet; brick; cost \$3000; plans by Harry W. Fox, carpenter, 2415 York road.

Durham, N. C.—City will rebuild burned Academy of Music. (See "Municipal Buildings.")

Fitzgerald, Ga.—J. R. McEachern, Atlanta, Ga., has prepared plans for opera-house; plans call for a three-story structure; fire-proof throughout; stone and brick construction; orchestra pit, gallery and balcony; offices and stores. (Recently mentioned.)

Fort Worth, Texas.—Carl Hohlitzel, Chicago, Ill., reported to erect theater in Fort Worth to cost \$200,000.

Jonesboro, Ark.—John Collins, manager of Majestic Theater, contemplates erecting air-dome.

Jonesboro, Ark.—Jesse Sinclair, manager of Empire Theater, and Bleich & Mack, managers of Lyceum, will build summer theater.

Kansas City, Mo.—Columbia Amusement Co. has leased two lots, 65x135 feet and 7x75 feet, respectively, on which to erect Gayety Theater; two stories; storerooms in front and theater in rear; reinforced concrete construction; ornamental brick facing on two street frontages; seating capacity, 1600; stage to be 66 feet wide and 36 feet deep, with gridiron 60 feet high; balcony to be reached by inclined way; lobby 20x58 feet; building will contain several stores and 17 offices; contract for construction awarded H. Ellanger & Co. of Kansas City and Chicago at \$115,000; plans by Carl Boller of Kansas City; Kansas City Amusement Co., Samuel A. Scribner, president, is also interested. (Recently mentioned.)

Knoxville, Tenn.—Cal F. Johnson is having plans prepared for theater.

Lawrenceburg, Tenn.—Joseph P. Kidd will erect opera-house; 60x100 feet; two stories; brick.

Memphis, Tenn.—Phil H. Lewis and others contemplate erection of theater and hotel building. (See "Hotels.")

Nashville, Tenn.—Carl Hohlitzel, Chicago, Ill., reported to erect theater in Nashville; fireproof; brick and steel; cost \$200,000.

New Orleans, La.—Leopold Levy, 341 Carondelet St., is considering erection of theater; site 100x162 feet; cost \$200,000.

Ocala, Fla.—Ocala Masonic Lodge will

erect combined lodge and theater; seating capacity of latter, 1000. (See "Miscellaneous Structures.")

Roanoke, Va.—William H. Horton will erect market and theater building.

South Pittsburg, Tenn.—W. H. Wilson will erect combined opera-house and mercantile building after plans by R. B. Patten & Son, Times Bldg., Chattanooga. (See "Miscellaneous Structures" and "Machinery Wanted.")

## WAREHOUSES

Baltimore, Md.—Robert C. Ullrich, 1516 Highland Ave., Baltimore, has distributed plans and specifications among contractors for warehouse to be erected at Pratt and Light streets by Andrew Reiter & Co., 200 East Lombard St.; structure is to be five stories and basement, L-shaped, 20x113 and 50x97 feet; heavy mill construction; brick exterior walls; electric elevators, etc. Bidders estimating include Edward Watters & Co., 532 St. Paul St.; Henry L. Maas, 906 Alsquith St.; John Cowan, 106 West Madison St.; James F. Farley, 43 Franklin Bldg.; J. Henry Miller, 110-112 Dover St.; Joseph L. Schamberger, 2122 East Baltimore St.; George Bunnecke & Sons, 305 St. Paul St.; J. Elmer Stanfield of Thomas B. Stanfield & Son, 109 Clay St.; J. J. Walsh & Son, 1525 Maryland Ave.; Monmonier & Sorrell, 308 Laurens St.; Charles L. Stockhausen, National Marine Bank Bldg.; John K. McIver of McIver & Piel, 2315 Edmondson Ave.; Henry S. Rippel, 17 Clay St.; Morrow Bros., 218 West Saratoga St.; Eugene D. Springer, 424 South Charles St.; Walter E. Burnham, 2 Builders' Exchange, and Thomas Reilly, 109 East Pleasant St., all of Baltimore. (Mentioned in February.)

Baltimore, Md.—Robert C. Ullrich, 1516 Highland Ave., Baltimore, has distributed plans and specifications among contractors for warehouse to be erected at Pratt and Light streets by Egerton Bros., 108 South St. Bidders include Henry L. Maas, 906 Alsquith St.; Morrow Bros., 218 West Saratoga St.; Eugene D. Springer, 424 South Charles St.; Joseph L. Schamberger, 2122 East Baltimore St.; George Bunnecke & Sons, 305 St. Paul St.; Walter E. Burnham, 2 Builders' Exchange; Henry Smith & Sons Company, 116-120 South Regester St.; Charles L. Stockhausen, National Marine Bank Bldg.; A. Knell, Jr., 215-217 Courtland St.; B. F. Bennett Engineering Co., 123 South Howard St.; J. Elmer Stanfield of Thomas B. Stanfield & Son, 109 Clay St.; Henry S. Rippel, 17 Clay St.; Edward Brady & Son, Cathedral and Howard Sts.; James F. Farley, 43 Franklin Bldg.; J. J. Walsh & Son, 1525 Maryland Ave.; J. Henry Miller, 110-112 Dover St., and Thomas Reilly, 109 East Pleasant St., all of Baltimore. Warehouse is to be five stories and basement; heavy mill construction; 61x100 feet; brick exterior walls, etc. (Further facts mentioned in February.)

Beaumont, Texas.—Union Naval Stores Co. will erect warehouse and establish assembly yards.

Chestertown, Md.—Graham Bros. will erect warehouse.

Chestertown, Md.—Davis & Satterfield will erect warehouse.

Clayton, N. C.—Clayton Tobacco Warehouse Co. incorporated with \$6000 capital stock by Ashley Horne & Son, G. Barbour & Son and others. (D. W. Barbour and others recently mentioned to erect two tobacco warehouses.)

El Reno, Okla.—Oklahoma Fruit Growers' Association proposes to erect warehouse, 100x150 feet, to be divided into office rooms, refrigerator rooms for spraying materials, seeds, etc.

Jacksonville, Fla.—Merchants & Miners' Transportation Co., A. D. Stebbins, general manager, Baltimore, Md., awarded contract to W. T. Hadlow Company, Jacksonville, for erection of two sheds, each 300 feet long and 75 feet wide, with railroad and street connections; cost \$80,000 to \$100,000. (Improvements recently noted planned.)

Kansas City, Mo.—James Flanagan will erect merchandise warehouse; six stories and basement; 72x120 feet; reinforced concrete; contain 60,480 square feet of floor space; construction has begun; C. A. Smith is architect.

Nashville, Tenn.—Wholesale Merchants' Warehouse Co., H. McDonald, general manager, recently reported to erect six additional stores to Cummins Station, will consider plans and estimates before definitely deciding to build; structures to be of reinforced concrete, about 225x130 feet; fireproof; steam heat; electric lighting.

Oklahoma City, Okla.—The Otis Elevator Co. of New York, Philadelphia and other

cities purchased site in Oklahoma City and will erect three-story warehouse, establishing branch office to handle its Southwestern trade. S. C. Baldwin of New York is president.

Wassington, Ga.—Dyson Warehouse Co. will open bids about May 1 for erection of \$10,000 cotton warehouse recently mentioned; standard brick construction; one acre.

## RAILROAD CONSTRUCTION

### RAILWAYS

Abbeville, La.—Survey for the railroad between Abbeville and Port Barre is reported completed, and F. M. Welsh is quoted as saying that construction will begin shortly. It is further reported that the line will run from Port Barre, on the Texas & Pacific Railway, to Breaux Bridge, where one line will be built to New Iberia and another to Abbeville, and possibly to the Gulf coast.

Artemus, Ky.—The list of incorporators of the Cumberland & Northwestern Railroad Co., recently incorporated to build 75 miles of line through coal and timber lands from Artemus to Beattyville, Ky., includes, it is reported, S. P. Condon, F. S. Mead, E. L. Thomas and J. M. Graham of Knoxville, Tenn.; B. C. Milner of Louisville, Ky.; C. B. Lytle and W. O. Gloster of Manchester, Ky. Mr. Graham is president, Mr. Condon vice-president and Mr. Thomas secretary and treasurer, and they with the others compose the board of directors. The company is authorized to issue securities to the amount of \$3,000,000, the capital being \$100,000.

Atlanta, Ga.—The Atlanta, Birmingham & Atlantic Railway, it is reported, will build the entrance to Birmingham from Pelham, Ala., about 18 or 20 miles; also some tracks to coal mines. A Bonnyman is chief engineer at Atlanta, Ga.

Barboursville, Ky.—An officer of the Cumberland Railroad, in a letter to the Manufacturers' Record, denies the press report that the company would build from Barboursville to Beattyville, Ky. He also says that the Cumberland Railroad Co. and its officials have no connection whatever with the Cumberland & Northern Railway, recently incorporated to build from Artemus to Beattyville.

Big Springs, Texas.—Concerning the press report that W. P. Soash and David Soash of Waterloo, Iowa, would build a railroad from Big Springs to the new town of Soash, Texas, and also to Lubbock, an officer of the W. P. Soash Land Co. informs the Manufacturers' Record that the plans include the building of a railroad about 50 miles long. Address Big Springs, Texas, or Waterloo, Iowa.

Birmingham, Ala.—An officer of the Tennessee Coal, Iron & Railroad Co., in a letter to the Manufacturers' Record, denies the press report about a proposed extension into the Warrior coal fields.

Bushnell, N. C.—A letter to the Manufacturers' Record says that 18 miles have been completed on the Tennessee Southern Railway (a branch of the Southern), which is being built west from Bushnell to meet the Marysville extension, which is being built east from Marysville, Tenn.

Cassville, Mo.—The Cassville & Western Railway, which has begun work on its electrification, will, it is reported, extend to Eureka Springs, Ark., and also to Carthage, Mo. S. M. Mitchell is president and general manager at Cassville, Mo.

Chattanooga, Tenn.—An official letter to the Manufacturers' Record says that there is no foundation whatever for the press reports that the Chattanooga Southern Railroad would be converted into an electric line and that branches would be built; also that the road, which is now under a receivership, must be sold in order to secure the best results.

Cherry Box, Mo.—The Farmers' Electric Railroad Association has, it is reported, been organized by Henry Funk of Cherry Box to build an electric railway from Kirksville, Mo., via Laplata to Hannibal, Mo., about 100 miles, and bonuses are already reported secured for sixty miles.

Clintwood, Va.—The Manufacturers' Record is informed that a movement is under way to build an electric railway from Clintwood to the nearest point on the Carolina, Clinchfield & Ohio Railway, about six miles, and that among those interested are Senator Roland E. Chase; Judge A. A. Skeen, president of the Citizens' National Bank of Clintwood; Columbus Phipps and others of Clintwood. A survey is expected soon.

Dallas, Texas.—R. C. Megargel is reported as saying that the Gulf, Texas & Western

Railroad has laid three miles of track out of Jacksboro, Texas, and construction is progressing. He has resigned as president, according to a report, being succeeded by J. J. Jernym of Scranton, Pa., Mr. Megargel becoming vice-president. B. B. Cain of Tyler, Texas, will be general manager; office at Dallas.

Eufaula, Ala.—The Manufacturers' Record is informed that A. J. Smith and others of Dothan, Ala., propose to build an electric railroad from Eufaula to Dothan. The line will run via Abbeville. R. C. Williams and R. D. Crawford of Dothan and Claude Gilbert of Sloumb, Ala., are also mentioned as interested.

Fairmont, W. Va.—Reported that the Fairmont & Clarksburg Traction Co. has secured rights of way for a proposed extension from Grasselli to Bridgeport, three miles.

Fayetteville, W. Va.—The Fayette & Greenbrier Railroad Co., it is reported, is preparing to begin construction on a line from Keeney's Creek, on the Chesapeake & Ohio Railway, to Meadow River, about 12 miles. The Brackens Creek Coal & Land Co. and others are reported interested.

Gail, Texas.—The Texas Central Railroad, it is reported, is considering a proposition that it build an extension to Gail, Texas, county seat of Borden county. Charles Hamilton is vice-president and general manager at Waco, Texas.

Goodlettsville, Tenn.—An official letter to the Manufacturers' Record says that contract for the Louisville & Nashville cut-off between Madison and Goodlettsville has been awarded to the Kreis & French Construction Co., Vandeventer Bldg., Knoxville, Tenn.

Hazlehurst, Miss.—Permanent survey is reported begun by W. C. Stowell for the Mississippi River Western Railway, which is to run via Meridian and Hazlehurst and other points to Natchez, Miss. From Hicks to Natchez, it is said, the line will follow the route of the old Natchez & Jackson Railroad, abandoned many years ago.

Independence, Mo.—Reported that Samuel T. McDermott has been granted right of way for about eight miles for an electric railway from Kansas City to East Swope Park Highlands.

Jasper, Ala.—Concerning the report that a railroad was contemplated from Jasper to Decatur, Ala., a letter to the Manufacturers' Record says that it is hoped the Alabama Central may be extended to Decatur. It is now 8 or 10 miles long out of Jasper, and is said to be working on another contract which will give it 20 or 25 miles of line.

Johnson City, Tenn.—The Carolina, Clinchfield & Ohio Railroad, according to a report from Frankfort, Ky., has incorporated in that State, and this is presumed to mean that the extension to Elkhorn City, Ky., has been decided upon and contract may soon be awarded. M. J. Caples is vice-president, general manager and chief engineer at Johnson City, Tenn.

Johnson City, Tenn.—J. B. Cox of Johnson City is reported as saying that he has organized the Austin Springs Railway Co. to build a line about five miles long between Johnson City and Austin Springs. Surveys have been made and contracts let for rails.

Kansas City, Mo.—Reported that George Townsend, 1327 Commerce Bldg., Kansas City, Mo., and associates will build a double-track railroad from Kansas City to St. Joseph, Mo., 52½ miles, one track being for electric cars and the other for steam. C. F. Enright of St. Joseph, Mo., is also reported interested. This, it is said, is part of the plan of the Kansas City & Cameron Railroad Co., the Kansas City Junction Railroad Co. and the Jackson County Junction Railroad Co., recently reported incorporated.

Lake Charles, La.—The Southern Pacific, it is reported, has made a survey and will build a line between Lake Arthur and Gueydan. A. V. Kellogg is engineer in charge of way and D. K. Colburn is bridge engineer, both at Houston, Texas.

Laurinburg, N. C.—An official letter to the Manufacturers' Record confirms the report that the Laurinburg & Southern Railroad Co. has been organized to build the proposed line from Laurinburg to Gibson, N. C., 10 or 12 miles. The construction contract will probably be let soon, right of way having been practically secured. The directors are: President, John F. McNair; secretary and treasurer, A. A. James; N. G. Wade, A. L. James, John Blue, D. K. McRae and R. H. Covington. A report from Raleigh says that the road has been chartered with \$25,000 capital to build from Laurinburg to some point on the Atlantic Coast Line; also through Scotland, Robeson, Cumberland or Moore counties to the Aberdeen & Rockfish Railroad. Mr. Blue is president of the latter.

Lynchburg, Va.—The Southern Railway, it is reported, has directed that construction be resumed on the Lynchburg cut-off early in April. W. H. Wells is chief engineer of construction at Washington, D. C.

Macon, Ga.—An official letter to the Manufacturers' Record says that the Macon, Dublin & Savannah Railroad Co. does not contemplate building a branch from Danville to Cary, Ga. This denies a recent press report.

Magnolia, Ark.—Reported that surveys are complete to build the Gulf, Magnolia & Northern Railway, 28 miles long, from Magnolia, connecting with Hope and Waldo, Ark. W. Y. Foster is general manager at Hope, Ark.

Marshall, Texas.—An official letter to the Manufacturers' Record says, concerning the press report that the Marshall & East Texas Railway would build a long extension, that it has not yet been decided how much would be built this year. At present 12 miles are under construction. R. J. Lockwood, Marshall, Texas, is engineer in charge.

Minden, La.—Reported that the Louisiana & Arkansas Railroad Co. has purchased the Minden East & West Railroad built for 12 miles by F. H. Drake of Minden, toward Shreveport, and the new owner is reported to have resumed grading on the line under the direction of G. Knobel, chief engineer. F. H. Drake is vice-president at Minden, La.

Moberly, Mo.—The Moberly Commercial Club, it is reported, is working to secure the building of an electric railway from Moberly to Huntsville, Mo., seven miles.

Mobile, Ala.—Concerning the press report that the Mobile, Jackson & Kansas City Railroad would soon be working on the extension from Middleton, Tenn., northward, President L. S. Berg, 49 Wall St., New York, writes the Manufacturers' Record that nothing definite has been determined about the extension.

Montgomery, Ala.—Reported that a movement is under way to build a railway from Montgomery to Alexander City, Ala., 56 miles, via Equality and Nixburg. The Montgomery Commercial Club may be able to give information.

Mount Pleasant, N. C.—The Mount Pleasant Railway Co. is reported chartered to build from Mount Pleasant to any point. The Mayor may be able to give information.

Mount Vernon, Texas.—President J. M. Fleming of the St. Louis, Oklahoma & Texas Railroad writes the Manufacturers' Record that an agreement has been signed to build the line, and Edwin Wilcox of New York is the financier. The construction company is not yet organized. It will be chartered from Mount Vernon to Sulphur Bluff, and is to build about 150 miles. Terminals are not yet announced. W. J. Smith of McAlester, Okla., is engineer. The directors are J. M. Fleming, A. J. Patton, J. H. Majors, G. P. Hill, M. L. Edward, M. H. Little, S. D. Goswick, J. Matins and J. L. Rutherford of Mount Vernon, Texas; Charles Mahaffey, James Sinclair and others of Sulphur Bluff. M. J. Healy is local promoter.

Natchitoches, La.—Reported that the Valley Trading Co. of Natchitoches and others are working to organize a railroad company to build from Alexandria, via Colfax, Natchitoches, Campti and Giddens, to Sibley, La., with a branch from Campti via Chestnut to Jonesboro, La. Among those reported interested are E. St. Anne Prudhomme, Harley A. W. Howcott and W. B. Safford of the Valley Trading Co. of Natchitoches; Capt. C. K. Teal and Joel M. Durham of Colfax, La.; John Barlow of Natchitoches, T. K. Giddens of Campti, L. Seiss of Alexandria, A. R. Johnson of Homer, R. D. Elmore of Chestnut and W. E. Huger of New Orleans.

Newbern, N. C.—The Pamlico-Neuse River Railway & Terminal Co., capital \$200,000, has been chartered to build from a point on the Trent River at or near Newbern to a point on the Pamlico River between Washington and Aurora, N. C. Address Newbern, N. C.

Newlonton, W. Va.—The Newlonton & Huttonsville Railroad Co. is reported chartered to build a line between the points named in its title. The incorporators are E. J. Russ of St. Marys, Pa.; C. H. Helm of Kane, Pa.; N. B. Bibb of Williamsport, Pa.; Henry Speer and Alexander W. Ewing of Pickens, W. Va.

Newton, Texas.—The Miller-Link Lumber Co. has, it is reported, made a survey for a tramroad from Newton to Farsville, 11 miles. Robert C. Sattley is engineer.

Nowata, Okla.—W. V. Thraves is reported as saying that capitalists of Kansas City are favorable to the plan to build a railway between Nowata and Bartlesville, Okla., and that the plan will soon be decided.

Ocala, Ga.—The Ocala Southern Railroad Co. has been authorized to issue \$150,000 of

stock and \$300,000 of bonds to build its proposed line from Ocala to Nashville, Ga., about 30 miles, on which four miles have been built. J. A. J. Henderson of Ocala is president.

Opelika, Ala.—Reported that the Alabama Railway & Electric Co. has completed its survey between Opelika and Eufaula and is now securing rights of way to begin work soon. Judson C. Chapman, 223 Century Building, Atlanta, Ga., is vice-president.

Prairie Home, Mo.—Henry C. Fricke of Prairie Home, Mo., and Frank Gimenden of Cedron, Mo., are reported to be promoting plans for an interurban railway from Sedalia to Prairie Home.

Quanah, Texas.—Mr. C. E. Ensminger, chief engineer of the Quanah, Acme & Pacific Railway Co., Quanah, Texas, writes the Manufacturers' Record that contract for the line was awarded to the Pacific Construction Co., and was sublet by them to P. M. Johnston, Son & Allhands, to build 42 miles of line from Quanah to Paducah, Texas; headquarters at Quanah. Officers are Sam Lazarus, president; Charles H. Sommer, first vice-president and purchasing agent; C. E. Ensminger, second vice-president, general manager and chief engineer; T. K. Hawkins, auditor, secretary, treasurer and general freight and passenger agent.

Rogers, Ark.—The Rogers & Pea Ridge Interurban Railway Co., recently organized, is reported to have completed survey and will soon begin work. The officers are A. P. Potter, president; J. F. Walker, vice-president; Bryan Snyder, secretary; J. J. Putnam, treasurer. Application will be made for a charter.

Salisbury, N. C.—The Salisbury & Fayetteville Coast Line Railway Co. has been re-incorporated by R. E. L. Manney. The line must be organized and begin work within two years.

Salisbury, N. C.—The Salisbury Railway Co. is reported chartered with \$125,000 capital to build from Salisbury to Winston-Salem, N. C. Address, Salisbury.

San Antonio, Texas.—The J. F. Burns Construction Co. has, it is reported, graded 17 miles and laid track on four miles of the Artesian Belt Railway, which is being built by Dr. C. F. Simmons from Macdonia, Texas, near San Antonio, to New Artesia, 42 miles. William Bradburn is chief engineer.

Sanford, N. C.—The Sanford & Glendon Railway Co. has been chartered to build a line from Sanford to Glendon, N. C., 14 miles; capital, \$70,000. The incorporators are J. B. Linnif, W. C. Carrell and J. H. Glover of Philadelphia; J. L. Tall of Hemp, N. C., and J. H. Kennedy of Gulf, N. C.

Talladega, Ala.—The Talladega Construction Co. has, it is reported, been given a contract on the Louisville & Nashville Railroad near Nashville, Tenn. C. G. Kershaw, G. A. Mattison and A. J. Stopp are interested.

Timpson, Texas.—The Timpson Northwestern Railway is reported to have let a contract for an extension from Timpson to Henderson, Texas, 14 miles. W. G. Ragley is president at Timpson, Texas.

Tuskaloosa, Ala.—Reported that the Louisville & Nashville Railroad will build an extension from Seales to Lock Sixteen, near Tuskaloosa. W. H. Courtenay is chief engineer at Louisville, Ky.

Valdosta, Ga.—Reported that Whitehead & Porterfield have the contract for clearing the right of way on the Valdosta, Moultrie & Western Railway, and that Contractor Langford will follow up with the grading. Chambliss & Bros. are working on the bridge over the Withlacoochee River. The officers are Frank Roberts, president; W. B. Conoley, vice-president; A. F. Langford, general manager of construction; Gordon Tillman, chief engineer; W. L. Roberts, secretary and treasurer. The directors include Messrs. Roberts, Conoley and Langford, besides B. P. Jones, D. C. Ashley, J. W. West and A. L. Davis.

An official letter to the Manufacturers' Record says that contract for the bridge at Little River is awarded to Chambliss Bros. of Tampa, Fla., and that Roberts & Cates of Valdosta, Ga., have the tie contract. The capital of the company is \$100,000.

Waynesville, N. C.—Engineers are reported at work on the survey of the South Atlantic Transcontinental Railroad, projected by Col. S. A. Jones of Waynesville. C. W. Pearson is chief engineer.

Welch, Okla.—The Joplin, Oklahoma & Western Railway Co. is reported to have made surveys and secured capital for its proposed line, and contracts are to be let this month. The projected route is from Joplin, Mo., via Miami, Welch, Centraline, Bartlesville, Pond Creek, Ponca City and Carmen, Okla. It will be altogether 250 miles

long. H. H. Jackman of Welch, Okla., is chief engineer. J. E. Gillespie, same address, and others are interested.

Wheeling, W. Va.—The Wheeling & Uniontown Railroad Co. of Wheeling, W. Va., has been chartered to build a line from Wheeling to Uniontown, Pa.; capital \$10,000. The incorporators are S. M. Noyes, J. M. Ritz, A. B. Woodruff, Randolph Hix and L. C. Ebeling, all of Wheeling.

Wheeling, W. Va.—Hon. Albert M. Schenk of Wheeling is reported to have closed an agreement with Pittsburg capitalists to build an electric railway from Wheeling to Pittsburg.

### STREET RAILWAYS

Brunswick, Ga.—The City & Suburban Railway, it is reported, has applied for charter to build a line not less than four miles long in Brunswick; capital \$50,000. The incorporators include F. D. M. Strachan, Frank D. Alkon, E. F. Coney, C. Downing and Albert Fendig.

Jackson, Miss.—The Jackson Electric Railway Co., it is reported, will immediately begin construction of an extension to the Baptist Orphanage.

Key West, Fla.—The Key West Electric Co., it is reported, will build an extension.

Lynchburg, Va.—The Lynchburg Traction & Light Co., it is reported, contemplates building an extension to Fairview Heights.

Port Arthur, Texas.—H. J. Myers and S. A. Price, both of Dayton, Ohio, have, it is reported, been granted a franchise in Port Arthur and also in Jefferson county for their proposed street railway in Port Arthur and to the docks, as well as the Gulf Refining Co.'s plant.

Tulsa, Okla.—C. H. Bosler, president of the Tulsa Street Railway, is reported as saying that extensions and other improvements will be made.

Waco, Texas.—The Citizens' Street Railway Co. has been granted a franchise to build an extension across the Brazos River into the Fifth ward, or East Waco.

Wheeling, W. Va.—An officer of the Wheeling Traction Co. is reported as saying that more than \$15,000 will be spent for improvements.

### MACHINERY, PROPOSALS AND SUPPLIES WANTED

**Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.**

Air Compressors.—Adler, May, Arrowood & Co., Adler Bldg., Atlanta, Ga., want air compressors with capacity of 500, 600 and 800 cubic feet per minute.

Art Glass.—Hon. J. M. Wagstaff, Abilene, Texas, wants prices on art-glass windows for \$20,000 church building.

Asbestos Curtains, etc.—W. H. Wilson, South Pittsburg, Tenn., wants catalogues and prices on asbestos and drop curtains.

Automobile Supplies and Material.—Austin Motor Car Co., 116 Congress Ave., Austin, Texas, wants prices on automobile supplies and material.

Bank Fixtures.—McPherson & Co., Cuthbert, Ga., wants bank fixtures.

Bathroom Furnishings.—Dr. E. A. Wareham, 130 West Washington St., Hagerstown, Md., wants prices on outfit for three bathrooms.

Boat.—White & Arkansas River Packet Co., Isaac Bankstone, 1200 West 33d St., Little Rock, Ark., secretary, wants to buy small steamboat.

Boiler.—See "Hoisting Engine."

Boilers.—Westport Paving Brick Co., 22 Abell Bldg., Baltimore, Md., wants prices on boilers.

Boilers.—Youngsville Sugar Factory, Ltd., Youngsville, La., wants prices on boilers.

Boilers.—See "Engines and Boilers."

Boilers.—Flint Gravel Co., Brookhaven, Miss., wants boilers.

Boring Machine.—Coles Mill Manufacturing Co., Iuka, Miss., wants porch column boring machine.

Bottling Machinery.—Mt. Pleasant Bottling Works, W. F. Cummins, manager, Mt. Pleasant, Tenn., wants carbonator and soda-water bottler.

Brass Handles.—Frank Wright, Cave Springs, Ga., wants brass swinging handles for small boxes.

Brick.—Marion Hotel Co., J. H. Gray, secretary, Marion, N. C., wants prices on pressed brick.

Brick Machinery.—W. W. Windle, Jr., Livingston, Tenn., wants brick machinery; 20,000 to 40,000 capacity daily.

Bricks.—John Drewry Foy, Nashville, Tenn., in market for 3500 square yards paving brick; ordinary size, with square edges, and not regular paving blocks; delivery at Frankfort, Ky.

Bridge Construction.—Office of State Highway Commission, Richmond, Va. Sealed proposals will be received until April 6 for construction of two steel bridges in Rappahannock county; lengths, respectively, 140 and 80 feet; plans and specifications on file at above office and at Clerk's office, Washington, Va.; certified check \$200; P. St. J. Wilson, State Highway Commissioner.

Bridge Construction.—Chickamauga Park Commission, E. E. Betts, engineer in charge, 905 James Bldg., Chattanooga, will receive proposals until April 15 for construction of steel truss highway bridge over West Chickamauga Creek at Lee & Gordon's Mills.

Building Material.—Liner & Francis, Waynesville, N. C., want catalogues and prices of building materials.

Building Materials.—Thos. Veitch, Anson, Texas, wants catalogues and prices on building materials for \$20,000 brick church building.

Building Materials.—W. J. Pettigrew, Durham, N. C., wants prices on building material and supplies, including sash, doors, blinds, builders' hardware, etc.

Building Materials.—Wm. A. Ehlers, Catonsville, Md., wants prices on building materials suitable for semi-fireproof brick school building, with stone trimmings.

Cannery.—Tulsa Canning & Manufacturing Co., Tulsa, Okla., will purchase machinery (\$2000) to equip cannery.

Canning Machinery.—Jewett Allin, Paradise, La., wants catalogues of machinery for vegetable canning.

Cans, etc.—Richland Canning Co., Pulaski, Tenn., wants prices on sanitary cans for fruit and vegetable cannery; also labels for cans.

Cars.—Adler, May, Arrowood & Co., Adler Bldg., Atlanta, Ga., want logging cars for 36-inch-gauge track.

Cement.—J. O. Barnes, Dublin, Ga., wants prices on cement.

Cement-tile Machinery.—W. R. Fuller & Co., 101 Water St., Tampa, Fla., want addresses of manufacturers of machinery for making cement tiling for land drainage.

Cement-block Machinery.—J. H. Tatum & Co., Miami, Fla., want information on process for making cement blocks white and producing them at less cost than by using only Portland cement.

Coal.—Baltimore (Md.) Board of Awards will receive bids until March 31 for furnishing Bayview Asylum with coal for year beginning April 16, as follows: 4000 tons (more or less) bituminous, 200 tons (more or less) anthracite, 100 tons (more or less) Sunbury; to be delivered at Bayview Asylum; proposals for bituminous, anthracite and Sunbury coal, respectively, to be treated as separate and distinct proposals; proposals for bituminous coal to be accompanied by certified check for \$500; proposals for anthracite and Sunbury coal by certified check for 10 per cent. of amount of contract. Specifications can be had at Bayview Asylum office, City Hall Annex, North Gay St.; Lamar Holiday, superintendent.

Concrete Construction.—Anton H. Classen, Oklahoma City, Okla., wants information and literature on concrete construction and maintenance with reference to 3 to 10 story office building.

Concrete-block Machines.—E. S. Ethridge, Jefferson, Ga., wants catalogues and prices on concrete-block machines; also sewer-pipe moulds.

Concrete Mixer.—B. A. Swaim, Pulaski, Tenn., in market for concrete mixer; three to five yards per hour capacity.

Concrete Mixers.—Construction Company General, 547 Drexel Bldg., Philadelphia, Pa., ready to correspond with manufacturers of concrete mixers.

Concrete Mixers.—R. E. Boggs, Spartanburg, S. C., in market for two Smith or Ran-



some concrete mixers, second-hand, with hoist arrangement.

Concrete Wall.—J. H. Dingle, City Engineer, Charleston, S. C., will open bids April 1 for constructing 4000 feet, more or less, of concrete retaining wall and for filling in behind same 667,000 cubic yards, more or less; filling to be dredged from river.

Cotton Gin.—Precher & Holman, Dyer Bldg., Augusta, Ga., want prices on 50-saw gin with press, condenser, shafting, boxes, hangers, etc.

Cotton Machinery.—Ivanhoe Manufacturing Co., F. K. Broadhurst, manager, Smithfield, N. C., in market for 5000-spindle mill equipment.

Creamery Apparatus.—H. Harbin, 71 Adler Bldg., Atlanta, Ga., wants creamery apparatus, including sanitary metal milk vats.

Crusher.—Fort Smith Supply & Construction Co., Fort Smith, Ark., wants portable rock crusher.

Drainage.—Board of Commissioners, Galveston, Texas, will receive bids until April 1 for construction of reinforced concrete drain along 26th street from Avenue D to slip at foot of 26th street, requiring 1450 linear feet of 3 feet 2 inches by 6 feet concrete drain, together with lateral connections and appurtenances thereto, as shown on plan; all work to be done in accordance with plans, details and specifications prepared by City Engineer and which can be obtained by application to his office in City Hall; certified check in sum of 5 per cent. of amount of bid; V. E. Austin, Commissioner of Streets and Public Property; A. T. Dickey, City Engineer; John D. Kelley, City Secretary.

Dump Cars.—E. Dillon's Sons, Indian Rock, Va., wants second-hand 1½-yard dump cars, 36-inch gauge.

Electric Fountains.—J. O. McBride, P. O. Box 422, Columbus, Ga., wants to correspond with manufacturers of electric fountains.

Electric Generator.—City of Watonga, Okla., J. C. Stanfield, Clerk, will want generator for electric and water plant.

Electrical Machinery.—Construction Company General, 547 Drexel Bldg., Philadelphia, Pa., ready to correspond with manufacturers of electrical equipment.

Electric Machinery.—A. V. Kaiser & Co., 739 Drexel Bldg., Philadelphia, Pa., wants direct-connected outfit, 200 or 250 kilowatts, alternating current, 50 cycles, three-phase, connected to simple Corliss engine; also several motors running from 10 to 35 and 40 horse-power for use with same.

Electric Motor.—N. G. Mauney, Eatonton, Ga., wants prices on alternating-current motor.

Electric Motors.—Hope Vacuum Cleaning Co., 232 Rialto Bldg., Kansas City, Mo., wants electric motors.

Electric-light Plant.—See "Water-works."

Electric Wiring and Fixtures.—Thos. Veitch, Anson, Texas, wants prices on electric wiring and fixtures.

Electrical Equipment.—Sealed proposals will be received at Bureau of Yards and Docks, Navy Department, Washington, until April 3 for installing 50-kilowatt generating set and accessories at Naval Station, New Orleans, La. Plans and specifications can be obtained on application to bureau or to Commandant of Naval Station named; R. C. Hollyday, Chief of Bureau.

Electrical Machinery.—Coles Mill Manufacturing Co., Iuka, Miss., wants second-hand dynamos for lighting factory.

Elevator Machinery.—Department of Interior. Sealed Proposals will be received until March 29 for installation of electric passenger elevator machinery for Interior Department (Patent Office) Building, Washington, D. C., in accordance with specifications and drawings, copies of which may be obtained upon application to chief clerk of department; R. A. Ballinger, Secretary.

Elevators.—G. A. Stowers, San Antonio, Texas, wants prices on electric freight and passenger elevators.

Engine.—City of Watonga, Okla., J. C. Stanfield, Clerk, will want engine for electric and water plant.

Engine.—See "Water-works."

Engine.—Skyland Hosiery Co., Tryon, N. C., F. S. Wilcox, general manager, wants quotations on second-hand engine; 60 horse-power.

Engine.—See "Gasoline Engine."

Engines.—See "Gasoline Engines."

Engines.—Flint Gravel Co., Brookhaven, Miss., wants engines.

Engines.—See "Gasoline Engines."

Engines.—Westport Paving Brick Co., 22 Abell Bldg., Baltimore, Md., wants prices on engines.

Engines and Boilers.—Construction Company General, 547 Drexel Bldg., Philadelphia, Pa., ready to correspond with manufacturers of engines and boilers.

Exhaust Fan.—Adler, May, Arrowood & Co., Adler Bldg., Atlanta, Ga., want exhaust fan for large store building.

Feed Machinery.—Jewett Allin, Paradise, La., wants catalogues of machinery for cutting stock feed and grinding hay.

Fire-extinguishing Apparatus.—Wm. A. Ehlers, Catonsville, Md., wants catalogues and prices on fire-extinguishing apparatus.

Flooring.—Dr. E. A. Wareham, 130 West Washington St., Hagerstown, Md., wants bids on hardwood floors.

Folding Doors.—Wm. A. Ehlers, Catonsville, Md., wants catalogues and prices on folding doors.

Gas Engines.—See "Engines and Boilers."

Gas Plant.—C. A. Slaughter, chairman building committee Methodist Episcopal Church South, Paintsville, Ky., wants prices on acetylene-gas plant for church.

Gasoline Engine.—Bedford Lumber Co., Georgetown, Texas, wants prices on gasoline engine.

Gasoline Engine.—Precher & Holman, Dyer Bldg., Augusta, Ga., want prices on 12-horse-power gasoline engine.

Gasoline Engines.—Adler, May, Arrowood & Co., Adler Bldg., Atlanta, Ga., want gasoline engines of 10, 20, 25, 45 and 50 horse-power capacity.

Glove Machinery.—C. N. Jones, Guthrie, Okla., wants to correspond with manufacturers of canvas glove machinery.

Grinding Machinery.—See "Feed Machinery."

Hardwood.—See "Flooring."

Hay Press.—P. C. Magoun, Monterey, La., wants all-steel hay press, size box 16x18 feet.

Heating Apparatus.—Thos. Veitch, Anson, Texas, wants hot-water heater for baptistry.

Heating Plant.—C. A. Slaughter, chairman building committee Methodist Episcopal Church South, Paintsville, Ky., wants prices on heating plant for church.

Heating Plant.—T. C. Mitchell, 3720 Warwick Bldg., Kansas City, Mo., wants bids on steam-heating plant for apartment-house; 24 apartments.

Heating Plant.—Marion Hotel Co., J. H. Gray, secretary, Marion, N. C., wants prices on steam-heating plant.

Heating Plant.—F. A. Bannister, 915 Olive St., St. Louis, Mo., wants prices on steam-heating plant for five apartment buildings.

Holisting Engine.—Theodore G. Empe, Wilmington, N. C., wants 20-horse-power double-drum double-cylinder holisting engine, complete with boiler and swinging gear, to slew boom.

Holisting Machines.—E. E. Carroll, Grand Coteau, La., wants holisting machine, steam or gasoline, to run two elevators at same time; send cut and specifications.

Ice Machinery.—George Stacker, Cumberland City, Tenn., in market for ice machine of 500 to 2500 pounds capacity.

Ice Machinery.—H. P. Savage, Fort Lauderdale, Fla., wants to correspond with manufacturers of small refrigerators with ice machine attached; to be installed on dredges.

Implements.—Benton Manufacturing Co., Monticello, Ga., wants addresses of manufacturers who will supply samples or models of agricultural implements.

Iron Fence.—Commissioners of Craven County, C. E. Foy, chairman, Newbern, N. C., will receive bids until April 5 for certain wrought-iron fence and gate work enclosing county jailyard; plans and specifications furnished to contractors on application to Stephen H. Fowler, Register of Deeds at Newbern; certified check for 10 per cent. of bid.

Iron Planer.—Newman Machine Co., Jackson St. and Southern Railway, Greensboro, N. C., in market for good second-hand iron planer, 24x24x5 or 6, or 26x26x5 or 6.

Labels.—Richland Canning Co., Pulaski, Tenn., wants prices on labels for cans.

Laundry Machinery.—Sealed proposals will be received at office of treasurer Southern Branch, N. H. D. V. S. National Soldiers' Home, Virginia, until April 6 for material and labor for furnishing and installing laundry machinery in main laundry and hospital laundry, in accordance with instructions and specifications, copies of which, with blank proposals and other information, may be had upon application to John T. Hume, treasurer.

Lighting Fixtures.—F. L. Banister, 915 Olive St., St. Louis, Mo., wants prices on lighting fixtures.

Lighting Equipment.—C. C. MacKee Co., No. 4 Queen's Rd., Central, Hongkong, China, wants lighting equipment; about 500 lights; light to carry three to five miles and turn completely around; simple in operation and economical in first cost and maintenance; each light complete in itself; to burn kerosene (preferred), gasoline, carbide or other material readily and economically handled.

Lighting Fixtures.—Dr. E. A. Wareham, 130 West Washington St., Hagerstown, Md., wants prices on lighting fixtures.

Lime.—J. O. Barnes, Dublin, Ga., wants prices on lime.

Lock and Bridge.—Office of Commissioners Chatham County and Ex-Officio Judges, Savannah, Ga. Sealed proposals will be received until May 3 for erecting reinforced concrete lock and bridge, Dundee Canal outlet, this county; specifications furnished by above office; certified check in sum equal to 5 per cent. of amount of bid; G. Reuben Butler, Clerk Chatham County Commissioners.

Locomotive.—Adler, May, Arrowood & Co., Adler Bldg., Atlanta, Ga., want 25-ton geared locomotive for 36-inch-gauge track.

Log-loader.—Adler, May, Arrowood & Co., Adler Bldg., Atlanta, Ga., want standard log-loader for 36-inch-gauge track.

Lumber.—U. S. Engineer Office, Nashville, Tenn.—Sealed proposals for furnishing and delivering 700,000 feet board measure long-leaf yellow pine lumber will be received until April 17; information on application; Wm. W. Harts, Major, Engineers.

Machine Tools.—McCabe Machine Co., 95 Liberty St., New York, wants second-hand lathes, planers and drills.

Machine Tools.—Hope Vacuum Cleaning Co., 232 Rialto Bldg., Kansas City, Mo., wants drills, lathes and shop tools.

Mantels.—Dr. E. A. Wareham, 130 West Washington St., Hagerstown, Md., wants prices on mantels.

Mattress Machinery, etc.—J. B. Deniston, Fitzgerald, Ga., wants to correspond with manufacturers of mattress and bed machinery.

Meal Mill.—Precher & Holman, Dyer Bldg., Augusta, Ga., want prices on small meal mill.

Mod-Is.—See "Implements."

Paving.—Robert Tait, City Treasurer, Montgomery, Ala., will receive bids until April 5 for paving of sidewalks of following named streets with Hexagon tile or Schlinger pavement, together with all necessary granite curbing, grading, sewers and brick walls in connection therewith, according to details, drawings, plans, specifications and surveys on file in office of City Engineer; Both sides of Grady street and Moulton street; east side of Bainbridge street; both sides of Oak street; east side of Wilkerson street; certified check, \$200, to accompany bid on Grady street, and certified checks for \$75 each accompany bids on each of other streets; also until same date for paving with clay gravel of roadway of Forest avenue from Highland avenue to city limits, together with necessary granite curbing, sewerage, grading and other work in connection therewith, according to plans, specifications, details and drawings on file in office of City Engineer; certified check \$500.

Paving, etc.—Sealed proposals invited until April 1 for construction of one mile of macadam road, and about one-half mile of paving to be either brick or bitulthic, as commissioners may determine; also for laying sewers and water pipes and for water system. Plans and specifications may be procured from Mayor or Town Clerk; certified check for \$1000. Address J. N. Mease, Mayor, or J. W. Scott, Town Clerk, Canton, N. C.

Pipe Molds.—E. S. Ethridge, Jefferson, Ga., wants catalogues and prices on sewer-pipe molds.

Pipe Organ.—Hon. J. M. Wagstaff, Abilene, Texas, wants prices on pipe organ.

Piping.—Bids will be received by City Clerk, Muskogee, Okla., until April 5 for furnishing approximately 22,000 linear feet of four-inch gas pipe; specifications furnished on request; L. B. Kinsey, City Engineer.

Piping.—Construction Company General, 547 Drexel Bldg., Philadelphia, Pa., will soon submit proposals for 21,000 feet of 16-inch cast-iron pipe and 30,000 feet of 6-inch cast-iron pipe; latter delivered in Kentucky.

Piping.—See "Water and Sewer Piping."

Piping.—Office Board of Control, Norfolk, Va.—Sealed proposals will be opened March 26 for laying sewer and water pipe in portion of Sixth ward. Plans, profiles and specifications may be seen at office of City Engineer. Bids to be made separately for sewer and water pipes, on blanks to be furnished; certified check \$500.

Piping.—Second-Hand Pipe & Supply Co., Avery and 3d Sts., Parkersburg, W. Va., wants 4000 feet second-hand 6½-inch 12-pound 11½-thread casing.

Plumbing.—See "Windmill and Plumbing."

Plumbing.—See "Bathroom Equipment."

Plumbing.—Marion Hotel Co., J. H. Gray, secretary, Marion, N. C., wants prices on plumbing.

Potato-slicing Machine.—H. L. Jones, 704 West Monroe St., Jacksonville, Fla., wants potato-slicing machine.

Power Plant.—Sagax Wood Co., 106 Dover St., Baltimore, Md., wants competitive prices on 300-horse-power power plant.

Power Pump.—See "Water-works."

Pumps.—Flint Gravel Co., Brookhaven, Miss., wants pumps.

Pumps.—Youngsville Sugar Factory, Ltd., Youngsville, La., wants prices on (Magma) pumps.

Quarrying Machinery.—Jordan Marble Quarry Co., Alpine, Texas, will be in market for marble quarrying and finishing machinery.

Rails.—Valdosta, Moultrie & Western Railroad, Frank Roberts, president, Valdosta, Ga., in market for 45 miles 60-pound steel rails and other equipment.

Railway Equipment, etc.—H. Zornow, Hochallee 115, Hamburg 37, Germany, wants catalogues, prices and discounts on railway equipment, rolling stock, supplies, etc.

Refrigerating Machinery.—Winfrey, Schlaffl & Porter, Houston, Texas, want information and prices on refrigerating machinery for cold-storage room; size 200 cubic feet; eight-foot ceiling, properly insulated.

Refrigerators.—See "Ice Machinery."

Refrigerators.—F. A. Bannister, 915 Olive St., St. Louis, Mo., wants prices on refrigerators for apartment-houses.

Road Construction.—Morgan County Commissioners, Decatur, Ala., will receive bids until April 12 for constructing 27½ miles macadamized roads; earth excavation, 66,641 cubic yards; rock culverts (dry masonry), 1050 cubic yards; crushed stone, 41,076 cubic yards. Plans, profiles and specifications can be obtained at office of County Engineer; Bullen & Boyd of Decatur are engineers.

Road Construction.—Sealed proposals will be received at Clerk's office, Boynton, Va., until April 12 for construction of 13 miles of macadam roads out of Clarksville. Plans and specifications may be seen at above office or at office of State Highway Commission, Richmond, Va.; certified check for \$250; convict labor to be furnished contractor. An engineer will be at Clarksville on March 30 to go over roads with prospective bidders. Proposals should be addressed to H. F. Hutchinson, Clerk, Boynton; R. T. Gordon, chairman of committee.

Road Machinery.—Town of Silver Creek, Miss., wants two-horse road machine. Address F. B. Denson, chairman of committee.

Roofing.—Atlantic Furniture & Lumber Co., Lineville, Ala., wants prices on 150 squares composition roofing.

Roofing.—Youngsville Sugar Factory, Ltd., Youngsville, La., wants prices on corrugated iron roofing.

Roofing.—McPherson & Co., Cuthbert, Ga., wants roofing.

Roofing.—J. O. Barnes, Dublin, Ga., wants prices on roofing.

Sawmill.—Rockcastle Lumber Co., care of Tug River Lumber Co., Bristol, Tenn., will receive bids on heavy single band mill machinery.

Sawmill Dogs.—McKeel-Richardson Hardware Co., 153 Main St., Washington, N. C., wants addresses of manufacturers of genuine Boss dogs for sawmill carriages.

Screens.—See "Washing Machinery, etc."

Screens.—Bids will be received at office of Constructing Quartermaster, Fort Myer, Virginia, until April 12 for installation of screens in seven officers' quarters, one barrack and two stable guard houses; certified check, 10 per cent. amount of bid; specifications on application. Address Capt. W. W. Whitlside, Constructing Quartermaster.

Screening.—Office of Chief Quartermaster, Department of Texas, San Antonio, Texas.—Sealed proposals in triplicate will be received until April 8 for furnishing and installing screens in eight sets of barracks and one set band barracks at Fort Sam Houston, Texas, in accordance with specifications to be seen at office. Information furnished on application. Address Col. John L. Clem, C. Q. M.

Seating.—W. H. Wilson, South Pittsburg, Tenn., wants catalogues and prices on opera chairs.

Seating.—T. W. Chambliss, Wadesboro, N. C., wants to correspond with manufacturers of church seats.

Sewer Construction.—Office of Commissioners of District of Columbia, Washington.—Sealed proposals will be received until April 26 for constructing sewer in 4th street S. E., between Virginia and North Carolina avenues. Specifications, form of proposal and necessary information may be obtained at Room No. 427 District Building. H. B. F. Macfarland, Henry L. West and William Kelly (acting), Commissioners of District of Columbia.

Sewer Construction.—E. R. Lee, City Clerk, Enid, Okla., will receive bids until April 2 for construction of about 1500 feet of eight-inch vitrified-pipe sewer and 1100 feet of six-inch vitrified-pipe sewer in extension to Sewer District No. 9; plans, profiles and specifications at office of City Engineer; certified check, \$50.

Sewer Piping.—See "Paving, etc."

Sewerage System, etc.—Mayor and Council, Oakland, Md., will receive bids until March 29 for construction of water-works and sewerage system as follows: Section A, laying approximately 13,000 feet four-inch water pipe, 2500 feet six-inch water pipe and 5000 feet eight-inch water pipe; section B, reinforced concrete reservoir, 600,000 gallons; section C, pump-house; section D, town hall and hose-house; section E, sewer system—2000 feet 24-inch pipe, 1200 feet 15-inch pipe, 2000 feet 12-inch pipe, 6500 feet 10-inch pipe and 9000 feet 8-inch pipe; six automatic flush tanks and 34 manholes. Certified check, \$300. Plans and specifications can be obtained from Town Clerk of Oakland, or Penniman & Fairley, consulting engineers, Baltimore, Md., on deposit of \$10. (Order of receiving bids changed since recent mention.)

Spoke and Handle Machinery.—Davis Bros., 16½ Commerce St., Montgomery, Ala., wants to correspond with manufacturers of spoke and handle machinery.

Spoke Machinery.—Rogersville Roller Mills, Rogersville, Tenn., wants names and addresses of manufacturers of spoke machinery.

Standpipe.—City of Wynnewood, Okla., will probably want standpipe or tower. Address T. B. Rollow, Mayor.

Steel Rails, etc.—Bids will be received at office of General Purchasing Officer, Istman Canal Commission, Washington, D. C., until April 19 for furnishing supplies during fiscal year ending June 30, as follows: Steel rails, frogs, angle bars, tie plates, rail braces, iron and lock washers, etc. Blanks and general information relating to Circular No. 499 may be obtained at above office or offices of assistant purchasing agents, 24 State street, New York; Custom-house, New Orleans; 1086 North Point street, San Francisco, Cal.; also from U. S. Engineer office in following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville, Mobile, Galveston, and Commercial Club, Kansas City; Chamber of Commerce, Quincy, Ill., and Chamber of Commerce and Board of Trade, Tacoma, Wash.; F. C. Boggs, Captain, Corps of Engineers, U. S. A., General Purchasing Officer.

Steel Trusses and Bars.—Bids will be received at Department of Justice, office of R. V. Laddow, Superintendent of Prisons and Prisoners, Washington, D. C., until April 19 for furnishing and delivering at U. S. Penitentiary, Atlanta, Ga., steel trusses and steel bars in accordance with plans and specifications, copies of which, together with further information, may be obtained at above office.

Store Front.—McPherson & Co., Cuthbert, Ga., wants store front.

Syrup Machinery.—See "Tanks."

Tank and Tower.—M. B. Moore, 1505 Welch St., Little Rock, Ark., wants tank and water tower; 40,000 gallons capacity.

Tanks.—Youngsville Sugar Factory, Ltd., Youngsville, La., wants prices on (Magma) tanks and syrup tanks.

Theater Curtains.—See "Asbestos Curtains, etc."

Typewritten Letters.—James A. Benson, Jr., Washington, Ga., wants to correspond with firms furnishing imitation typewritten letters.

Vault.—People's National Bank, Brunswick, Md., G. W. Billmyer, cashier, will want bids on vault work.

Washing Machinery, etc.—Flint Gravel Co., Brookhaven, Miss., wants washing machinery, screens, etc., for gravel-washing and loading plant.

Water-works.—Bids will be received by

Board of Improvement, District No. 4, Herman Carlton, secretary, Lake Village, Ark., until April 6, in four items, as follows: Brick power-house and pump pit; 300-gallon power pump and 30-horse-power gasoline engine with accessories; 50,000-gallon hemispherical-bottom steel tank on tower 125 feet high; three miles of four to eight inch mains, hydrants, valves, etc. Plans and specifications on file with board at Lake Village and furnished to bidders for \$3 per set. Lund & Hill, Little Rock, Ark., are consulting engineers.

Water-works.—See "Sewerage System, etc."

Water-works.—See "Paving, etc."

Water-works and Electric-light Plant.—City of Minco, Okla., will probably let contract early in April for material for and construction of water-works and electric-light plant; cost about \$25,000 for both; plans and specifications with Burns & McDonnell, engineers, Kansas City, Mo.

Water-works Supplies.—Office of Superintendent City Water-works, City Hall, Richmond, Va. Sealed proposals will be received until April 14 for following supplies and contract work: Gate valves, cast-iron pipe, special castings, double-nozzle fire hydrants, valve boxes, meters, meter boxes, pig lead, wiping solder, brass work, hauling, laying and relaying granite or cobblestone paving, cutting and refilling pipe trenches and repaving over pipe trenches. Specifications, plans, information and form of proposal can be obtained at above office; certified check for \$100; E. E. Davis, superintendent.

Wheelbarrow Machinery.—Jewett Allin, Paradise, La., wants catalogues of machinery and equipment for manufacturing wooden wheelbarrows.

Windmill and Plumbing.—Board of Supervisors of Gloucester county will receive proposals for erection in public square at Gloucester Court House, windmill, according to following specifications: Tank of capacity

of 10,000 gallons, 35 feet, tower galvanized; 2½-inch cypress tank with 10-foot wheel, 35-foot tower from bottom of tank to wheel, with pump and regulator for 50-foot well, with walkway and rail around tank; also plumbing supplies for four-room jail; bids to be received by A. T. Wiatt, clerk of board, until April 10. For further information address J. W. Collier, Selden, Va.

Wire and Cables.—Office of Board of Fire Commissioners, City Hall, Richmond, Va. Sealed proposals will be received at this office until April 5 for furnishing Fire-alarm Telegraph Department with following materials: Five miles of No. 12 B. W. gauge triple-braided weatherproof insulated galvanized-iron wire; five miles of No. 10 B. & S. gauge triple-braided weatherproof insulated copper-clad steel wire; five miles of No. 8 B. & S. gauge hard-drawn triple-braided weatherproof insulated copper wire; each proposal for wire to state time required to deliver wire, and samples of wire to be furnished with bid; wire is to be delivered to Fire-alarm Department, City Hall. Sealed proposals for cable will also be received separately up to above-mentioned time for furnishing bunched cables, copper conductors, rubber and paper insulated, as per specifications that can be obtained on application to W. H. Thompson, Superintendent Fire-alarm Telegraph, City Hall; proposals for cable to be accompanied by certified check for \$250; L. S. Jones, secretary.

Woodworking Machinery.—See "Spoke Machinery."

Woodworking Machinery.—McHue Lumber Co., McHue, Ark., wants planer and matcher, resaw for siding and self-feed rip saw.

Woodworking Machinery.—See "Spoke and Handle Machinery."

Woodworking Machinery.—See "Boring Machinery."

Woodworking Machinery.—See "Wheelbarrow Machinery."

## INDUSTRIAL NEWS OF INTEREST

### Wants Bauxite and Dolomite.

The Charles R. Fife Company, 424 Pierce Bldg., St. Louis, Mo., wants bauxite and dolomite in quantities, and invites statements of details as to properties offered.

### The Wagner Electric Offices.

The Wagner Electric Manufacturing Co. announces the removal of its district office in Pittsburg to the Lewis Block and the appointment of Ludwig Hommel as district manager.

### Cotton Mill for Sale.

The Pearle Cotton Mill of Elberton, Ga., is offered for sale and the date of opening bids has been extended to April 10. For details address E. B. Heard, Middleton, Ga., or George C. Grogan, Elberton, Ga.

### Hydraulic Stone Plant Offered.

On April 5 the property and plant of the Spartanburg Hydraulic Pressed Stone Co. will be offered for sale. Full description can be obtained by addressing E. L. Hertzog, Spartanburg, S. C.

### The "Titelock" Metal Shingles.

The Decatur Corncorn and Roofing Co., New Decatur, Ala., has accepted the Southern sales agency of the Milwaukee (Wis.) Corrugating Co. for the latter's "Titelock" metal shingles.

### Engine Company Wants Superintendent.

An engine-building company located in the Middle West has an opening for a thorough and competent general superintendent. For particulars address "Superintendent," care of M. R., 543 Century Bldg., St. Louis, Mo.

### Offering Pig-Iron and Coke.

The Cincinnati Iron & Steel Co., Cincinnati, Ohio, has organized a pig-iron and coke department, under the management of Robert Field, formerly of the Robert Field Iron & Steel Co. A full line of Southern and Virginian irons and coke from the best districts will be offered.

### The Construction Company General.

Harry A. Loche of Philadelphia announces the organization of the Construction Company General, incorporated with a capital of \$125,000 to act as general contractor for electric-light and water plants, sewer systems, street paving and other public improvements, especially in the South. Mr. Loche is largely interested in the development of Southern properties, and has formed the new company, he having been elected president, Martin D. Kresbach vice-president, K. M.

Denzler secretary-treasurer, and W. D. Griffith consulting engineer of the Southern department. This company's executive offices are at 547 Drexel Bldg., Philadelphia, Pa. It is now prepared to correspond with manufacturers of piping, electrical equipments, arc and incandescent lamps, copper wire, concrete mixers, steam engines, natural-gas engines, boilers, etc. Proposals will soon be submitted for furnishing 21,000 feet of 16-inch cast-iron pipe and 30,000 feet of 6-inch cast-iron pipe, the latter to be delivered in Kentucky.

### Keuffel & Esser Company Catalogue.

Architects and engineers will be interested in the new catalogue of the Keuffel & Esser Co., Hoboken, N. J. This company manufactures and imports a full line of drawing materials and surveying instruments necessary to every branch of the architectural and engineering professions, and these are all fully illustrated and described.

### Furniture Plant for Sale.

The plant of the New Albany Furniture Co. is offered for sale. It includes land, buildings, power-house, furniture manufacturing machinery, etc., all located in the center of a well-known hardwood district. For full details address M. F. Rogers, secretary of the company, New Albany, Miss.

### Seefeld Company Furnishing Plans.

The Harwood Electric Power Co., Hazleton, Pa., is putting in foundations for a large power station at Harwood mines. Four turbines and boilers have been installed and put in operation. The plans and specifications, by the Seefeld Engineering Co., consulting engineer, Arcade Bldg., Philadelphia, are practically completed.

### The Carolina Asbestos Products.

The asbestos pipe covering and other products of the Carolina Asbestos Manufacturing Co. are in increasing demand, as is evidenced by the decision of the company to add to its facilities. The capital has been increased and the plant at Greensboro, N. C., will be doubled in output.

### Increasing Demand for Railway Supplies.

Inquiries and orders recently received by the Ernst Wiener Company, Hudson Terminal, 50 Church St., New York, indicate a renewal of activities. Among the orders was one for the complete equipment of a narrow-gauge railroad in Colombia, South America. This order consists of over six miles of track, switches, a number of freight and passenger cars and two locomotives.

### Coal and Brick Plant Offered.

A decree of court has ordered the sale of the Piedmont (W. Va.) Brick & Coal Co.'s coal mines, fire-brick works, lease on 600 acres of coal and clay lands, etc. This property is equipped with machinery and ready for operation. It will be offered at public sale on April 3. For further particulars address Wm. MacDonald, Commissioner, Keyser, W. Va.

### The Carter Electric Co.

The W. E. Carter Electric Co., Atlanta, Ga., deals in gas, electric and combination fixtures and gas-lighting supplies, and is the Southern agent for the Yost sockets. It has a large trade, which is increasing steadily. Inquiries are invited for data and prices on lighting fixtures for dwellings, stores, office buildings, churches, theaters and other structures.

### New Texas Engineering Firm.

Hollis P. Porter announces the organization of Winfrey, Schlafl & Porter, composed of Mr. Porter, J. M. Winfrey and A. Schlafl. This company will act as general engineer and contractor in civil, mechanical and industrial engineering, and will have associate members for active engineering and field work. The firm's offices have been established at 206 Stewart Bldg., Houston, Texas.

### Ludlow-Saylor Wire News.

Interesting news from the Ludlow-Saylor Wire Co., St. Louis, Mo., is that the company's trade during 1908 was very satisfactory and that steady improvement has been noted since last August, when the company's fiscal year began. This company manufactures various kinds of wire goods, including specialties which have become well known among manufacturers and dealers throughout the country.

### The Zimmerman Corner Block.

Architects and building contractors are advised that the Zimmerman patent iron base for wood porch columns is now manufactured for North Carolina, South Carolina, Tennessee, Florida, Alabama, Georgia, Mississippi, Louisiana, Texas and Arkansas by the Sheffield Steel Range & Stove Co., Sheffield, Ala. The Zimmerman base is the product of the Syracuse Corner Block Factory, C. E. Zimmerman, proprietor, Syracuse, N. Y.

### New Engineering Firm.

Charles O. Lenz and Harvey E. Mole announce that they have entered into a partnership for general engineering under the title of Lenz & Mole, with offices at 71 Broadway, New York. Both members of the firm have had a wide and varied experience in important engineering work, and in order that prospective clients may be fully posted as to their several capabilities, they have issued a little booklet setting forth their accomplishments in their profession.

### Phillips Sheet & Tinplate Co.

The Phillips Sheet & Tinplate Co., Clarksburg, W. Va., has been reorganized and consolidated with a new organization formed by Howard M. Davis, formerly with the American Sheet & Tinplate Co. The old name will be retained, but new officers have been elected. These are E. W. Mudge, chairman board of directors; E. T. Weir, president; Howard M. Davis, vice-president and general manager of sales; William H. Baldrige, vice-president, and D. M. Weir, secretary.

### Utilizing Pine Land Waste Materials.

A pamphlet has been published by the Hoffman-Ahlers Company, chemical engineers, Louisville, Ky., calling the attention of sawmill and turpentine operators, owners of pine lands and others interested in timber to the advantages of utilizing the large amount of waste material which is now being destroyed throughout the country. These waste materials can be converted into marketable products, and just how to do this the booklet explains in detail.

### Good-Roads Construction.

Municipal and State officials and engineers and contractors having in charge the construction of roadways will be interested in a pamphlet published by the A. L. Barber Asphalt Co., 90 West St., New York. The pamphlet contains an article entitled "The Best Road and the Right Way to Make It," by Amzi Lorenzo Barber. The author has devoted 30 years to the paving of city streets, and the article embraces his views on how this can best be done.

### Plain and Lithographed Cans.

The Southern Can Co., Baltimore, Md., manufactures lithographed and plain cans, and has a representative plant—one of the largest and best-equipped of the independent enterprises. It ships its product all over the



South and has established an extensive trade with the syrup interests in Texas and Louisiana. The company manufactures all kinds of cans for paint, putty and baking-powder purposes, and while making a specialty of lithographed cans, offers plain cans of all descriptions.

#### Blaisdell Machinery in the South.

Blaisdell air and gas compressing machinery is in demand in the South, as evidenced by recent orders. It is made by the Blaisdell Machinery Co. of Bradford, Pa., which reports the following recent contracts: Air compressors and vacuum cleaning equipment for 1040-foot (long) laboratory of Department of Agriculture, Washington, D. C.; same equipment for the \$2,000,000 postoffice and courthouse at Cleveland, Ohio, and the \$1,000,000 courthouse at Memphis, Tenn., and same equipment for the 10-story Southern Hotel at Meridian, Miss.

#### International Car Co.

At a meeting of the directors of the International Car Co. last week the following changes in organization were effected: Seely Dunn was elected president to succeed W. H. Bofinger, Sr., deceased; W. H. Bofinger, Jr., director, to succeed W. H. Bofinger, Sr., deceased; W. F. Bofinger, Jr., vice-president, to succeed Seely Dunn. The vice-president will have jurisdiction over the purchasing department, and will perform such other duties as are assigned to him by the president. C. K. Barnes is secretary; offices in Maison Blanche, New Orleans, La.

#### Simple Rules for Good Concrete.

Practical men and those desiring to know something about the mixing and placing of concrete by hand in order to do small jobs for themselves will find this fully and simply explained in bulletin No. 20, published by the Association of American Portland Cement Manufacturers, Percy H. Wilson, secretary, Land Title Bldg., Philadelphia, Pa. This bulletin is especially issued for instructing those who desire to take advantage of the utility of Portland cement concrete, but who have not the technical knowledge of the subject. The bulletin tells what concrete is, how it can be made and what must not be done to meet with success.

#### Western Electric Co. Sales.

One of the representative American electrical manufacturing corporations is the Western Electric Co. of Hawthorne, Chicago, Ill. and 463 West St., New York. Its sales for its first quarter's fiscal year were 30 per cent. larger than last year and indicate an annual trade of \$45,000,000. This company's recent contracts included two generators of 1800 horse-power for the Albany shops of the New York Central Railway, extensive equipments for rural telephone service throughout the South and West, electric-lighting machinery for all parts of the country, etc. Its plants are operating at about 70 per cent. of their capacity and employ 16,000 persons. Speaking of trade conditions, a representative of the company said: "The prospects are for a good, steady business from now on, with a normal growth. We do not look for any notable expansion before fall, and perhaps not then, but we shall be satisfied if the year continues along the line on which it has started. While our books show more customers than ever before, the totals are smaller, because the sales are much smaller per customer. They are, however, larger per customer than several months ago."

#### Power-Transmission Engineering.

However good and efficient may be the power-generating plant or those tools and machinery actually turning out the product of a plant, if the power is not being properly transmitted from the generating plant to the machines economical operation is not possible. The transmission of power with the least possible loss should be closely studied by the manager of every plant. The Dodge Manufacturing Co., Mishawaka, Ind., has devoted its energies for 30 years to this subject, and today it occupies an enormous plant and manufactures everything needed in the mechanical transmission of power. The company also maintains an engineering department, supervised by practical and technical men, who have been long schooled in the construction of power-transmission machinery and its accessories, and, while the company estimates on plans submitted by purchasers, the services of this department are always available for such designs as are desired. The company's power-transmission machinery is illustrated and described and prices are given in a 400-page catalogue, known as No. C7. The catalogue also lists the company's various branch and district warehouses and contains illustrations and descriptions of the various departments of its plant, all of which impresses the reader with the capabilities of

this company to produce power-transmission machinery for all purposes and from the smallest to the largest sizes. For those interested in special lines of transmission machinery the company publishes pamphlets especially devoted to these subjects, including those on the harnessing of water-powers, the safe construction and speeds for flywheels, friction clutches, ball-and-socket shaft hangers, with plain and self-oiling bearings; Dodge pulleys, hangers, rope driving, Dodge keyless compression couplings, etc.

#### TRADE LITERATURE.

##### Starr Expansion Bolt Co.

The Starr Expansion Bolt Co., Bayonne, N. J., is distributing illustrated cards describing briefly its Starr expansion shields and bolts, toggle bolts and other similar products well known to the trade.

##### Interesting Views of Blast Furnaces.

A supplement (No. 13) to the Pollock general book of views is now being distributed. It contains interesting general photographs of blast furnaces and details of plate work for furnaces constructed by the William B. Pollock Company of Youngstown, Ohio.

##### Flexible Metal Hose and Tubing.

A catalogue published by the American Metal Hose Co., 173-177 Lafayette St., New York, presents the various sizes and prices of its flexible metal hose in steel and copper; flexible metal tubing in brass, steel, copper and aluminum, etc.; seamless copper tubing for gasoline; flexible metal hose for high pressures and for rock drills, pile-drivers, suction, oil, gasoline, etc. Samples and discounts will be sent to those interested.

##### A Gateway of New York.

An interesting booklet issued by the Lawrence Cement Co., 1 Broadway, New York, and Harrison Bldg., Philadelphia, Pa., illustrates and describes the ferry-house portion of the new Liberty-street Terminal of the Jersey Central Railroad in New York City. This structure was constructed largely of reinforced concrete, and the Lawrence company's Dragon Portland cement was used for the greater part of the concrete work.

##### Modern Southern Printing Plant.

Entering the printing and binding business 21 years ago in a small way in Norfolk, Va., Burke & Gregory have today one of the largest enterprises of the kind in the South. A new home has recently been occupied by the firm, the structure not only being absolutely fireproof, but also containing the most approved equipment necessary to high-grade printing and binding work. The firm makes a specialty of bank, railroad, steamboat and commercial work.

##### Automobile and Motor Boat Vise.

Manufacturers and owners of automobiles and motor boats are invited to investigate the F. & R. automobile and motor-boat vise manufactured by the Fulton Machine & Vise Co., Lowville, N. Y. This company offers a vice on which the jaws and both swivels are clamped with one operation of the lever. This tool has advantages which will appeal to anyone interested in devices of its kind. A leaflet describing and illustrating the vise is being distributed by the company.

##### Tests of Friction Clutches.

Engineers, owners of power plants and others who are concerned with friction clutches for power purposes will find interesting data presented in a reprint of the paper presented at the last annual meeting of the Society of Mechanical Engineers under the title of "Tests of Friction Clutches for Power Transmission." This paper was read in New York last December by Prof. R. G. Dukes of Cleveland, Ohio. Its reprint in pamphlet form is accompanied by photographic views, diagrams and tables that assist in elucidating the text. The pamphlet is being distributed by the Hill Clutch Co., the well-known manufacturer of power-transmitting, elevating, conveying and cement machinery, etc., Cleveland, Ohio.

##### Corrugated Metal Road Culverts.

Metal Culverts are recognized as offering numerous advantages demanded nowadays. Among the manufacturers offering such culverts is the West Virginia Metal Culvert Co., which manufactures the Watson patented metal culverts—a continuous road culvert, made of heavy sheet metal, corrugated, galvanized, riveted together, making a culvert of strength and durability. These culverts are hauled the same as sawlogs and are, therefore, readily shipped from one point to another. They require little cement at joint and no extra preparation of ditch. The company is located at Fairmont, W. Va., and is

now distributing an illustrated pamphlet which describes the culverts and presents copies of letters from road engineers and others of experience who recommend the Watson culvert.

##### Wire—Its Manufacture and Uses.

Excavations in Egypt have brought to the surface ornaments of wire, showing that the art of making it was practiced thousands of years ago. The manufacture of wire and its uses is the subject of an interesting booklet now being distributed. This publication tells how industry converts bars of steel and copper into wire, and thus makes possible the telephone, the ocean cable, the electric light and the many other applications of electrical energy now doing service throughout the world, besides which wire is used in logging, bridge building, elevator service, fencing, etc. The book is illustrated with photographic views, including the works of the John A. Roebling's Sons Co., the well-known manufacturer of wire, main offices at Trenton, N. J.

##### Steel-Bound Concrete Curbs.

The use of concrete curbs in conjunction with improved paving is continually increasing in all parts of the country, and these curbs have been found to give the best of satisfaction. The main wear on the curb is on the edge, and in order to thoroughly protect this the Steel Protected Concrete Co., Real Estate Trust Building, Philadelphia, Pa., manufactures the Walwright galvanized steel corner bar, which is the principal feature of its patented steel-bound concrete curb. To center attention in its system the company is sending to those interested several souvenirs, including a black wooden ruler with brass edge, an aluminum section of the corner bar, to be used as a paper weight, and several booklets descriptive of the curb and the methods of laying it.

##### Bar, Mesh and Fabric Reinforcement

An illustrated publication now being distributed is "Bar, Mesh and Fabric Reinforcement." It presents timely information regarding reinforcement for construction purposes, and will be of value to architects, engineers and contractors. It tells about reinforcing concrete, for which steel is commonly used in various forms, rolled into bars, expanded from sheets into expanded metal, or drawn into wire and woven into a fabric. The book is issued by the General Fireproofing Co., Youngstown, Ohio, manufacturer of square lug bar, cold twisted lug bar, expanded metal, wire fabric reinforcement, pin-connected girder frames, herringbone trussed bar and truss reinforcement, etc. It includes data on the sizes, weights and areas of these different materials, tables of design and photographs of typical applications.

##### Grinding Wheels and Machinery.

Grinding processes are used in a multitude of ways in manufacturing and other industry, and the production of grinding wheels and machinery has consequently become in itself an important industry. Prominent in this branch of activity is the Norton Company of Worcester, Mass. This company is now distributing a new illustrated and descriptive catalogue of Norton products—aluminum, grinding wheels, grinding machinery, glass-cutting wheels, India oilstones, razor hones, scythe stones, rubbing and sharpening stones, etc. Aluminum is the electric furnace product used as the abrasive in the manufacture of Norton grinding wheels, and has become well known for its efficiencies wherever abrasives are used. Interesting information regarding aluminum and its manufacture and the various Norton devices is presented in the new catalogue.

##### Atlas Engines and Boilers.

In presenting the 1909 edition of its general catalogue the Atlas Engine Works of Indianapolis, Ind., has been contented with an illustration and a simple description of each type of Atlas engines and boilers, together with a statement of the usual range of sizes. The company announces that specific and detailed information on any particular unit or combination will be supplied upon request. Its designs express the latest thought in steam engineering, and the growth of its plant has kept pace with the general development of the country. The Atlas shops are thoroughly equipped with modern tools and powerful cranes for economical construction and handling, capable of an annual production of 4000 engines and 5000 boilers averaging 100 horse-power each. As there is a growing tendency to specify internal-combustion engines for small powers, the company has introduced a line of gas and gasoline engines. For 35 years the Atlas engines and boilers have been built, and 75,000 are used in the United States and foreign countries. The Atlas catalogue is a

creditable trade publication, its letter-press being exceptionally clear and the illustrations having been prepared from photographs. There is considerable steam engineering information presented, of interest to all who use boilers and engines.

##### Ehret's Slag Roofing.

To the engineer, architect, builder, owner or agent who is about to place a roofing contract, the primary considerations are the durability of the roof and the responsibility of the firm applying it. With this idea in mind the Warren Ehret Company, Land Title Bldg., Philadelphia, Pa., which for over 50 years has been engaged in the roofing business, has recently published a 60-page booklet illustrating and describing how Ehret's slag roofing is made, the various applications of it and the specifications to be followed for putting it on different kinds of buildings. Numerous important structures and plants are also illustrated, indicating the value which it must have as a roofing material. Many letters are published from users in all parts of the country, and a long list of references is given, so that it is possible for those contemplating letting a roofing contract to investigate for themselves the merits which the company claims for its slag roofing.

##### The Nelson Valve Catalogue.

One of the best-known manufacturers of valves is the Nelson Valve Co., Chestnut Hill, Philadelphia, Pa. This company is now mailing its new 1909 catalogue, a cloth-bound publication with 220 3x5-inch pages bound in cloth. The publication illustrates and describes gate, globe, angle and check valves, in large variety, of various metals. New features included are the patented bronze sling check valves and hydraulically and electrically operated gauge valves. The list of steel gate and globe valves for high pressures and superheated steam marks a new era in high-class valve construction. Another departure is the listing of open-hearth steel fittings. Many engravings are presented, both inside and outside views, the descriptive text and dimensioned lists being immediately opposite the illustrations in order to facilitate easy and critical study of each of the valves. Test pressures and working pressures are given in each case, so that the valve user has a definite basis for selection of the valves he wants.

##### Attractive Plans for Concrete Residences.

Prospective builders of residences will find many valuable suggestions in a booklet published by the Universal Portland Cement Co., Chicago and Pittsburg, and containing a selected number of designs of dwelling, with descriptions and estimates of cost, submitted in a competition of the Chicago Architectural Club for prizes offered by the Universal company. The possibilities in the use of concrete in domestic architecture have only begun to be realized, and one of the principal objects of this competition was to encourage a study of the use of concrete in an artistic as well as practical manner and to obtain designs which would be appropriate for such material. The cost of the structures was limited to \$8000, and the designs submitted indicated not only the fine roomy and artistic structures which can be obtained for this money, but also the broad adaptability of this material for all classes of design. Work of this kind by the Universal Portland Cement Co. tends to educate the general public up to the possibilities of cement and stimulates a demand for concrete structures of the better class.

The noted locks at Plaquemine, La., connecting the Mississippi River with Plaquemine Bayou, are reported complete, although there is still a bank of earth on the side toward the river and a temporary dam on the side toward the bayou, both of which must be removed before the locks are put in use. The Mississippi River is high now, and it is stated that the bank cannot be removed until low water. The locks are expected to promote business with the southwestern part of Louisiana by way of Plaquemine and Pigeon bayous, Grand Lake and the Atchafalaya River. They are made necessary because at high water the river is nearly 32 feet above the bayou, the distance between the two being about 800 feet. The locks, which are very heavily constructed, are built of concrete, and cost about \$1,000,000. Work on them began in the summer of 1898.



## FINANCIAL NEWS

## Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,  
Baltimore, Md., March 24.

Trading in the Baltimore stock market was not as active this week as last, yet there was a good amount of business, and prices were generally well sustained.

In the trading United Railways common sold at 11 1/2; do. trust certificates, 11 1/2; the incomes from 53 1/4 to 53 3/4; the funding 5s, 79 1/2 to 79 3/4; United 4s, 87 3/4 to 88 1/4; Consolidated Gas 6s, 102 1/2 to 103 1/4; do. 5s, 111 to 111 1/4; do. 4 1/2s, 93 3/4 to 94 1/4; Seaboard Company common, 12 1/2 to 13 1/4; do. first preferred, 48; Seaboard 4s, 65 1/4 to 66 1/4; do. three-year 5s, 96 1/4 to 96 3/4; Cotton Duck 5s, 80 1/2 to 79 3/4; G. B. S. Brewing 1st, 43.

Bank stock sold as follows: Citizens', 39 1/2 to 39 3/4; Union, 122. Mercantile Trust sold at 136 1/2 to 136; Continental Trust, 194; Maryland Trust preferred, 94; United States Fidelity & Guaranty, 112 to 113; Fidelity & Deposit, 153.

Other securities were traded in thus: Consolidation Coal, 118 to 116; Houston Oil common, 7 1/4 to 9 1/4; do. preferred, 35 1/4 to 38 1/4; Maryland Electric 5s, 95 1/2 to 95 3/4; Wilmington & Weldon 4s, 100; Charleston Consolidated Electric common, 29; Baltimore Traction 5s, 112; Coal & Iron Railway 5s, 101 1/2; Florida Southern 4s, 93 3/4; Norfolk Railway & Light 5s, 95 1/2; Western North Carolina 6s, 108; North Carolina 4s, 1910, 99 1/2; Maryland Telephone 5s, 98 3/4 to 99; Northern Central Railway stock, 104 1/2 to 105; Anacostia & Potomac 5s, guaranteed, 106 1/2; Atlanta Consolidated Street Railway 5s, 105 1/4; Virginia Midland 2ds, 103 1/4; Wilmington & Weldon 5s, 114 1/4; Atlantic Coast Line Consolidated 4s, 97 1/4 to 97; do. new 4s, certificates, 85 1/2 to 86 1/2; Georgia, Carolina & Northern 5s, 105 1/2; Western Maryland Railroad stock, 10; Charleston Consolidated Electric 5s, 88; Baltimore City Passenger 5s, 101 1/4; Georgia & Alabama Consolidated 5s, 102 1/4 to 102 3/4; Baltimore City 3 1/2s, 1930, 100 1/2; Alabama Consolidated Coal & Iron 5s, 83 to 84; Charleston & Western Carolina 5s, 108 1/4; City & Suburban (Washington) 5s, 105; Northern Central 5s A, 113 1/4; Virginia Century, 92; Baltimore City 4s, 1926, 105; Baltimore Electric 5s, stamped, 90 to 89 1/2; Canton Company of Baltimore, 90; Fort Worth & Denver City 6s, 116 1/2; Omaha Water Co. P. L. 5s, 100 1/2; Baltimore & Potomac main line 6s, 103 1/2; Georgia Southern & Florida 5s, 100 1/2; Baltimore City 3 1/2s, 1928, 100 1/2; Twin City 1st Con. 5s, 1928, 106; Detroit United 4 1/2s, 84; Baltimore City 5s, 1916, W. L., 107; do. do. F. L., 107; Richmond Traction 5s, 104.

## SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended  
March 24, 1909.

Railroad Stocks.	Par	Bid.	Asked.
Atlanta & Charlotte	100	187 1/2	190
Atlantic Coast of Conn.	100	225	225
Charleston Consol.	50	31	31
Georgia Southern & Florida	100	22	26
Georgia South. & Fla. 1st Pfd.	100	93	95
Georgia South. & Fla. 2d Pfd.	100	70	72
Norfolk Railway & Light	25	19 1/4	19 1/2
Seaboard Co. Com.	100	13	13 1/2
Seaboard Co. 1st Pfd.	100	43	50
Seaboard Co. 2d Pfd.	100	24	26
United Rys. & Elec. Co.	50	11 1/2	11 1/2
Western Maryland	50	10	10 1/2

Bank Stocks.	Par	Bid.	Asked.
Citizens' National Bank	10	39	40
Drovers & Mechanics	100	225	225
First National Bank	100	143	146 1/2
Maryland National Bank	20	19	20
National Bank of Baltimore	100	121	121
National Exchange Bank	100	123 1/2	123 1/2
National Howard Bank	10	12 1/2	12 1/2
National Marine Bank	30	41	41
National Mechanics' Bank	10	29	29
National Union Bank of Md.	100	121 1/2	125
Second National Bank	100	190	190
Third National Bank	100	124 1/2	135
Western National Bank	20	35 1/4	35 1/4

Trust, Fidelity and Casualty Stocks.	Par	Bid.	Asked.
American Bonding Co.	25	62 1/2	65
Baltimore Trust & Guar.	100	275	282 1/2
Continental Trust	100	195	195
Maryland Trust Pfd.	100	94 1/2	95
Merc. Trust & Dep.	50	135	137
U. S. Fidelity & Guaranty	100	112 1/2	115

Miscellaneous Stocks.	Par	Bid.	Asked.
Ala. Con. Coal & Iron	100	25	30
Ala. Con. Coal & Iron Pfd.	100	5 1/2	8
Con. Cotton Duck Com.	50	22 1/2	24
Con. Cotton Duck Pfd.	50	22 1/2	24
Con. Gas, Elec. Lt. & P. Pfd.	100	76	80
Consolidation Coal	100	116	118
G. B. S. Brewing Co.	100	2	3
George's Creek Coal	100	85	90

Railroad Bonds.	Par	Bid.	Asked.
Atlanta & Charlotte Ext. 4 1/2s	99 1/2	97 1/2	97 1/2
Atlantic Coast Line 1st 4s, 1952	100	86	86 1/2
Atlantic C. L. New 4s, Cfs.	100	89	89
Atlantic C. L. 5s, Cfs.	100	108	108
Atlantic C. L. (Conn.) 4s, Cfs.	100	82 1/2	86
Balto. & Annapolis L. 5s	90	95	95 1/2
Carolina Central 4s, 1949	93	93 1/2	93 1/2

Charlotte, Col. & Aug. 1st 5s, 1910	110	100
Coal & Iron Railway 5s, 1920	101 1/2	102 1/2
Col. & Green, 1st 6s, 1916	110 1/2	110 1/2
Florida Southern 4s, 1940	93 1/2	94
Georgia & Ala. 5s, 1943	102	103
Georgia, Car. & North, 1st 5s, 1929	105 1/2	105 1/2
Georgia Pacific 1st 6s, 1922	116 1/2	116 1/2
Georgia South. & Fla. 1st 5s, 1945	109 1/4	109 1/4
Maryland & Pennsylvania 4s, 1951	91 1/2	91 1/2
Petersburg Class A 5s, 1928	110	112 1/2
Petersburg Class B 6s, 1928	118	122 1/2
Piedmont & Cum. 1st 5s, 1911	100	100
Potomac Valley 1st 5s, 1941	103 1/2	103 1/2
Raleigh & Augusta 1st 6s, 1926	114	114
Raleigh & Washington 4s	100 1/2	100 1/2
Richmond & Dan. Gold 5s, 1915	109 1/2	109 1/2
Savannah, Fla. & West, 5s, 1934	112 1/2	115
Savannah, Fla. & West, 6s	128	129 1/2
Seaboard Air Line 4s, 1950	95	96 1/2
Seaboard Air Line 5s, 10-yr., 1911	95 1/2	96 1/2
Seaboard Air Line 5s, 3-yr.	96 1/2	96 1/2
Seaboard & Roanoke 6s, 1916	107 1/2	107 1/2
Seaboard & Roanoke 5s, 1926	107 1/2	108 1/2
South Bound 5s, 1941	106	106
Southern Ry. Con. 5s, 1904	110 1/2	111
Virginia Midland 2d 6s, 1911	103 1/2	103 1/2
Virginia Midland 3d 6s, 1916	106	106
Virginia Midland 5th 5s, 1926	107	107
Washington Terminal 3 1/2s	91 1/2	93
Western Maryland 4s, 1952	83 1/2	84
Western N. C. Con. 1914	108	108 1/2
W. Va. Cent. 1st 6s, 1911	102 1/2	102 1/2
Wilmington & Weldon, Gold 5s, 1935	114	114 1/2
Wilmington & Weldon 4s	100	100

## Street Railway Bonds.

Anacostia & Potomac 5s, Gtd.	106 1/2	107
Atlanta Con. St. Ry. 5s	105	105 1/2
Augusta Ry. & Elec. 5s, 1940	101	102
Balto. City Pass. 5s, 1911	101 1/2	102
Balto. Sp. Pt. & C. 4 1/2s	93 1/2	93 1/2
Balto. Trac. 1st 5s, 1929	111 1/2	112 1/2
Balto. Trac. (N. B. Div.) 5s, 1942	115	121 1/2
Central Ry. Con. 5s (Balto.), 1922	113	113
Central Ry. Ext. 5s (Balto.), 1922	113	113
Charleston City Ry. 5s, 1923	104 1/2	105
Charleston Con. Elec. 5s, 1939	89	90
Chattanooga Electric 5s	100 1/2	100 1/2
City & Suburban 5s (Balto.), 1922	109	109 1/2
City & Suburban 5s (Wash.), 1948	105	105
Knoxville Traction 1st 5s, 1928	104	104
Lake Roland Elevated 5s, 1942	115	115
Lexington Ry. 1st 5s, 1949	95	99
Macon Ry. & L. 1st 5s, 1953	94	94
Maryland Elec. Rys. 5s	95 1/2	95 1/2
Memphis St. Ry. 5s	95 1/2	97
Metropolitan 5s (Wash.), 1925	110	110
Norfolk Railway & Light 5s	95 1/2	96
Norfolk Street Railway 5s, 1944	105	105
Richmond Traction 5s	104	106
United Railways 1st 4s, 1949	86 1/2	86 1/2
United Railways Inc. 4s, 1949	53 1/2	54

## Miscellaneous Bonds.

Ala. Con. Coal & Iron 5s	83 1/2	83 1/2
Baltimore Electric 5s, Stpd.	89 1/2	90
Brush Electric 5s	94 1/2	95 1/2
Consolidation Coal Refr. 4 1/2s	94 1/2	95 1/2
Consolidated Gas 6s, 1910	101 1/2	102
Consolidated Gas 5s, 1939	111 1/2	112
Consolidated Gas 4 1/2s	93 1/2	93 1/2
Con. Gas, Elec. Lt. & P. 4 1/2s	83	84
Fairmont Coal 5s	94 1/2	95 1/2
G. B. S. Brewing 1st 4s	42 1/2	43 1/2
G. B. S. Brewing Inc. 4s	10	12
Maryland Telephone 5s	98	98 1/2
Mt. Vernon-Woodby's Cot. Duck 5s	79 1/2	79 1/2
United Elec. Lt. & P. 4 1/2s	95 1/2	95 1/2

## SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh Mac-  
rae & Co., Wilmington, N. C., for  
Week Ending March 22.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	75	75
Alken Mfg. Co. (S. C.)	82	82
American Spinning Co. (S. C.)	145	150
Anderson Cotton Mills (S. C.)	65	69
Arkwright Mills (S. C.)	109	102
Augusta Factory (Ga.)	65	70
Avondale Mills (Ala.)	115	125
Belton Mills (S. C.)	120	120
Bibb Mfg. Co. (Ga.)	114	114
Brandon Mills (S. C.)	148	148
Cabarrus Cotton Mills (N. C.)	120	131
Chadwick-Hoskins Mfg. Co. (N. C.)	86	90
Chadwick-Hoskins Mfg. Co. (N. C.)	100	100

Chiquola Mfg. Co. (S. C.)	102	102
Clifton Mfg. Co. (S. C.)	103	106
Clifton Mfg. Co. (S. C.) Pfd.	99	101
Clinton Cotton Mills (S. C.)	105	105
Columbus Mfg. Co. (Ga.)	98	98
Courtenay Mfg. Co. (S. C.)	94	96
Dallas Mfg. Co. (Ala.)	95	105
Darlington Mfg. Co. (S. C.)	70	76
Drayton Mfg. Co. (S. C.)	100	100
Eagle & Phoenix Mills (Ga.)	121	121
Enterprise Mfg. Co. (S. C.)	150	150
Enoree Mfg. Co. (S. C.)	90	94 1/2
Enterprise Mfg. Co. (S. C.) Pfd.	82	90
Exposition Cotton Mills (Ga.)	240	240
Gaffney Mfg. Co. (S. C.)	70	75
Gainesville Cotton Mills (Ga.)	55	55
Granby Cot. Mills (S. C.) 1st Pfd.	50	50
Granville Mfg. Co. (S. C.)	165	160
Greewood Cotton Mills (S. C.)	65	65
Grendel Mills (S. C.)	118	118
Henrietta Mills (N. C.)	160	175
King Mfg. Co., John P. (Ga.)	96	100
Lancaster Cotton Mills (S. C.)	125	146
Lancaster Cot. Mills (S. C.) Pfd.	95	95
Langley Mfg. Co. (S. C.)	83	83
Laurens Cotton Mills (S. C.)	137 1/2	137 1/2
Limestone Mills (S. C.)	140	150
Lockhart Mills (S. C.)	78	81
Lockhart Mills (S. C.) Pfd.	95	95
Loray Mills (N. C.)	90	95
Mariboro Cotton Mills (S. C.)	76 1/2	76 1/2
Mayo Mills (N. C.)	165	165
Mills Mfg. Co. (S. C.)	105	105
Mills Mfg. Co. (S. C.) Pfd.	100	100
Monahan Mills (S. C.)	110	115
Monarch Cotton Mills (S. C.)	100	102
Newberry Cotton Mills (S. C.)	130	130
Norris Cotton Mills (S. C.)	115	120
Olympia Cot. Mills (S. C.) 1st Pfd.	70	70
Orangeburg Mfg. Co. (S. C.) Pfd.	80	80
Orr Cotton Mills (S. C.)	105	107
Pacolet Mfg. Co. (S. C.)	120	126
Pacolet Mfg. Co. (S. C.) Pfd.	96	96
Pelzer Mfg. Co. (S. C.)	150	160
Piedmont Mfg. Co. (S. C.)	171	175
Poe Mfg. Co. (S. C.)	140	140
Richland Cot. Mills (S. C.) 1st Pfd.	46	50
Raleigh Cotton Mills (N. C.)	100	100
Roanoke Mills (N. C.)	160	160
Saxon Mills (S. C.)	122	125
Sibley Mfg. Co. (Ga.)	62 1/2	62 1/2

Spartan Mills (S. C.)	130	140
Springdale Mills (S. C.)	100	100
Tucapau Mills (S. C.)	225	250
Trion Mfg. Co. (Ga.)	140	140
Union-Buttalo Mills (S. C.) 1st Pfd.	58 1/2	58 1/2
Victor Mfg. Co. (S. C.)	120	125
Warren Mfg. Co. (S. C.)	93 1/2	95
Warren Mfg. Co. (S. C.) Pfd.	100	100
Washington Mills (Va.)	27	30
Washington Mills (Va.) Pfd.	109	109
Whitney Mfg. Co. (S. C.)	140	140
Williamston Mills (S. C.)	107	110
Wiscasset Mills (N. C.)	125	135
Woodruff Cotton Mills (S. C.)	124	130
Woodside Cotton Mills (S. C.)	102	104
Woodside Cot. Mills (S. C.) Pfd.	95	97 1/2

Quotations Furnished by William S.  
Glenn, Broker, Spartanburg, S. C.,  
for Week Ending March 22.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	70	70
Aiken Mfg. Co. (S. C.)	82	82
American Spinning Co. (S. C.)	145	150
Anderson Cotton Mills (S. C.)	67	61
Arkadia Mills (S. C.)	92	92
Arkwright Cotton Mills (S. C.)	100	105
Augusta Factory (Ga.)	65	70
Avondale Mills (Ala.)	110	125
Belton Mills (S. C.)	116	...
Brandon Mills (S. C.)	145	...
Cabarrus Cotton Mills (N. C.)	120	130
Chadwick Mfg. Co. (N. C.) Pfd.	103	...
Chiquola Mfg. Co. (S. C.)	102	103
Clifton Mfg. Co. (S. C.)	104	...
Clifton Mfg. Co. (S. C.) Pfd.	99	103
Clinton Cotton Mills (S. C.)	...	105
Columbus Mfg. Co. (Ga.)	...	98
Courtenay Mfg. Co. (S. C.)	...	97
Dallas Mfg. Co. (Ala.)	95	...
Darlington Mfg. Co. (S. C.)	70	75
Converse Co., D. E. (S. C.)	112	...
Drayton Mills (S. C.)	...	100
Eagle & Phoenix Mills (Ga.)	121	...
Easley Cotton Mills (S. C.)	145	150
Enoree Mfg. Co. (S. C.)	50	63
Enoree Mfg. Co. (S. C.) Pfd.	...	100
Enterprise Mfg. Co. (Ga.)	83	90
Exposition Cotton Mills (Ga.)	...	240
Gaffney Mfg. Co. (S. C.)	72	75
Gainesville Cotton Mills (Ga.)	55	...
Granby Cot. Mills (S. C.) 1st Pfd.	...	45
Granville Mfg. Co. (S. C.)	160	165
Greewood Cotton Mills (S. C.)	...	65
Grendel Mills (S. C.)	108	118
Hartsville Cotton Mill (S. C.)	122	127
Henrietta Mills (N. C.)	160	175
Inman Mills (S. C.)	105	110
Lancaster Cotton Mills (S. C.)	110	125
Lancaster Cot. Mills (S. C.) Pfd.	91	96
Langley Mfg. Co. (S. C.)	91	96
Laurens Mills (S. C.)	140	140
Limestone Mills (S. C.)	...	141
Lockhart Mills (S. C.)	78	82
Lockhart Mills (S. C.) Pfd.	95	100
Loray Cotton Mills (N. C.)	92	96
Marlboro Cotton Mills (S. C.)	...	80
Mills Mfg. Co. (S. C.)	...	100
Mollohan Mfg. Co. (S. C.)	96	100
Monaghan Mills (S. C.)	115	...
Monarch Cotton Mills (S. C.)	100	103
Newberry Cotton Mills (S. C.)	...	145
Ninety-Six Cotton Mills (S. C.)	115	...
Norris Cotton Mills (S. C.)	...	120
Oak Mills (S. C.) (N. C.)	...	90
Olympia Cotton Mills (S. C.)	...	68
Orr Cotton Mills (S. C.)	104	...
Pacolet Mfg. Co. (S. C.)	...	160
Pacolet Mfg. Co. (S. C.) Pfd.	97	100
Pelzer Mfg. Co. (S. C.)	150	157
Piedmont Mfg. Co. (S. C.)	175	180
Poe Mfg. Co., F. W. (S. C.)	125	130
Saxon Mills (S. C.)	122	125
Sibley Mfg. Co. (Ga.)	63	...
Spartan Mills (S. C.)	125	135
St. Charles Mills (Ga.)	132	140
Union Mills (S. C.)	235	250
Union-Buttalo (S. C.) 1st Pfd.	...	60
Victor Mfg. Co. (S. C.)	122	130
Warren Mfg. Co. (S. C.)	92	93
Warren Mfg. Co. (S. C.) Pfd.	100	...
Washington Mills (Va.)	25	...
Washington Mills (Va.) Pfd.	100	110
Whitney Mfg. Co. (S. C.)	...	140
Winncress Mills (N. C.)	125	135
Woodruff Cotton Mills (S. C.)	125	130
Woodruff Cotton Mills (S. C.)	...	100
Watts Mills (S. C.)	90	95
Williamston Mills (S. C.)	105	110



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WM. INGLE, Vice-President and Cashier.  
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JOHN B. H. DUNK, Asst. Cashier.  
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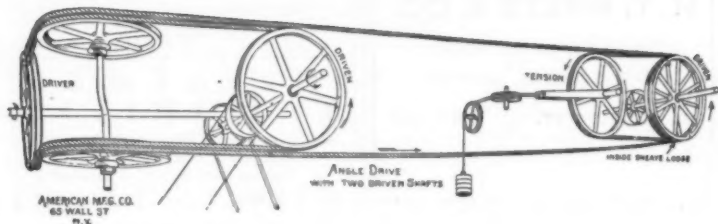
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July 15, 1908, Surplus and Profits, \$671,631.60

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EDWIN WARFIELD, President.

of Minco, and W. H. Wadsworth of Chickasha.

Montevallo, Ala.—Reported that a new bank is to be established.

Nashville, Tenn.—Hermitage Bank & Trust Co. incorporated with \$300,000 capital by Frank Dibrell, E. T. Lewis, R. J. Montgomery, Alex. Perry, C. N. Cowden, R. W. Comer, W. W. Wilkerson, John R. Aust, John A. Jones, W. A. Bryan, P. H. Timothy and L. M. Jackson. Business is expected to begin in about 60 days.

New Orleans, La.—The Orleans Homestead Association, authorized capital \$5,000,000, has been organized with directors thus: Jos. A. Craven, Jos. Reuther, Byron C. McClellan, Nicholas J. Long, George Grundmann, Jr., Dr. William J. Gilbert, Robert Legier, Frank E. Perry, Don Fred Watts, Victor Schrt, W. R. Douglas, Jas. M. Cassidy, Albert J. Wetzel, Sr., Andrew Crassons, Charles T. Fletcher, Albert Guilbault, Lawrence T. Kira, Daniel J. Murphy, Cicero A. Ramsey, Michael O'Keefe, John H. LeBesque, Sylvester Blasini, Jr., Frank X. Dufour, George Keller and Joseph V. Roca.

Oklahoma City, Okla.—A new life insurance company capitalized at \$500,000 is reported incorporated by John Threadgill, I. C. Thurmond, W. L. Norton, W. A. Edwards, R. B. Howell and A. W. A. Brooks of Oklahoma City, Ed. F. Johns of Chickasha. A later report gives the name as the Oklahoma National Life Insurance Co.

Pond Creek, Okla.—The First State Bank of Pond Creek, capital \$25,000, has been granted a charter. T. J. Gentry is president; L. W. McGivney, vice-president, and Conrad Stecker, cashier.

Pratt City, Ala.—The Pratt City Loan & Investment Co. has completed its organization by electing directors thus: S. T. Key, president; W. Atkinson, vice-president; Charles F. Smith, secretary; N. W. Howell, Jr., treasurer; Sam Faby, Dr. J. E. Seny, E. O. Sanders, G. M. Taylor and J. M. Collins.

Raleigh, N. C.—A new bank is reported being organized. E. O. Duncan is said to be interested.

Tallahassee, Fla.—The Hastings Banking Co. has published its charter; capital \$30,000; incorporators, N. McQueen, R. C. Harris, F. K. Harris, N. McQueen and L. Carter.

Tallahassee, Fla.—The Investment Company of Florida has published its charter; capital \$10,000; incorporators, John A. Whitner, Jr., F. G. Rush, George W. Mills, Clarence F. Low and J. W. Harris.

Rentz, Ga.—Chartered: Bank of Rentz; capital \$25,000; incorporators, H. D. Barron, B. W. Wynn, W. E. Bedingfield, P. C. Coleman, B. A. Moye, M. R. Mackey, I. S. Knight and J. J. Taylor.

Russellville, Ala.—The Rural Carriers' Protective Association of America, according to a letter received by the MANUFACTURERS' RECORD, has been incorporated in Alabama. It is a fraternal society with life insurance features. S. J. Petree is president.

Rutherford, Tenn.—Chartered: Home Exchange Bank; capital \$25,000. James H. Moran of Dresden and others are the incorporators.

Sevierville, Tenn.—Reported that the Sevier County Bank will begin business about April 1 with directors thus: I. C. McMahon, president; J. B. Brabson, vice-president; Asa DeLozier, Dr. Massey, A. M. Paine, Mack McMahon, Dr. A. J. Isam and J. M. Hardin.

Sinton, Texas.—The Bank of Commerce has begun business; capital \$15,000; J. H. McGuffin, president; Mr. Charlesworth, cashier.

St. Louis, Mo.—The Broadway National Bank has been approved; capital \$200,000; organizers, D. A. Siegfried, P. O.

Box 866; S. Nelson Chesney, F. Ernest Cramer, C. L. Gray and Xerophen Wilfey.

Washington, D. C.—The Provident Savings Bank is being organized with \$500,000 capital. Daniel Nash Morgan will probably be president.

#### New Securities.

Alameda, Texas.—An issue of \$200,000 of drainage-district bonds has been authorized by the Harris County Commissioners' Court.

Amite City, La.—April 20 election will be held to vote on \$30,000 of bonds of School District No. 2.

Atmore, Ala.—Reported voted: \$13,000 of high school building bonds.

Bowersville, Ga.—April 6 an election will be held to vote on \$10,000 of 5 per cent. 20-30-year school bonds.

Brewton, Ala.—Voted: Bonds to improve light and water systems.

Camp Hill, Ala.—Reported that an election will be held to vote on electric-light bonds.

Charleston, Miss.—The Grenada Bank of Grenada, Miss., is reported to have purchased \$20,000 of water and sewer bonds.

Charleston, W. Va.—Voted: \$80,000 of school bonds.

Chattanooga, Tenn.—The First National Bank of Cleveland has purchased at \$7865.48 the \$7805.48 of paving bonds.

Chattanooga, Tenn.—Bids will be received by W. R. Crabtree, Mayor, until 3 P. M. March 31 for \$125,000 of 4½ per cent. 30-year funding bonds.

Clearwater, Fla.—The MANUFACTURERS' RECORD is informed that bids will be received by H. W. Bivins, chairman, until March 31 for \$40,000 of 5 per cent. water and sewer bonds.

Corpus Christi, Texas.—Voted: \$37,000 of water-works bonds.

Crockett, Texas.—All bids received March 15 for the \$25,000 of 5 per cent. water-works bonds were rejected, and it is stated new bids are asked until March 29 by C. L. Edmiston, Mayor.

Dallas, Texas.—The election to vote on \$175,000 of Dallas county bridge bonds will be held March 30.

DeFuniak Springs, Fla.—April 15 an election will be held to vote on \$12,000 of water-works, \$8000 of sewerage, \$10,000 of electric-light and \$5000 of street and park 6 per cent. 20-year bonds.

Dothan, Ala.—An ordinance is to be introduced in the City Council providing for \$25,000 of high school building, \$20,000 of street paving and \$20,000 of water, sewerage and light extension bonds.

Durham, N. C.—Bids will be asked in about 30 days by the Durham County Commissioners for \$150,000 of 4 per cent. 12-year bonds to fund floating indebtedness.

Easley, S. C.—Voted: \$5000 of bonds for addition to Central high-school building.

Easton, Md.—Reported that an election will probably be held to vote on \$50,000 of paving bonds.

Elk City, Okla.—Spitzer & Co. of Toledo are reported to have purchased \$35,000 of sewer, City Hall, firehouse and reservoir bonds.

Ensley, Ala.—The City Council has under consideration the issuing of \$100,000 of school and \$75,000 of sewer bonds.

Fort Pierce, Fla.—April 20 an election will be held in St. Lucie county to vote on \$150,000 of 5 per cent. 10-30-year road bonds.

Fort Worth, Texas.—The Tarrant County Commissioners have ordered an election April 24 to vote on \$250,000 of bonds for the purpose of reclaiming land.

Erick, Okla.—Reported that John Nuvée & Co. of Chicago have purchased \$27,500 of water-works bonds at 103.273.

Gaffney, S. C.—The election to vote on \$125,000 of 5 per cent. 20-40-year water, light and sewer bonds will be held March

31, and not March 19, as was previously stated. W. H. Ross is Mayor.

Hazlehurst, Ga.—Voted: \$18,000 of water-works and \$12,000 of school-building bonds.

Hondo, Texas.—April 6 Medina county will vote on \$40,000 of road and bridge bonds.

Jacksonville, Ala.—Mayor S. R. Wilkerson informs the MANUFACTURERS' RECORD that the bonds for water-works have been voted.

Jonesboro, Ala.—Voted: \$30,000 of school-building bonds.

Jonesboro, Tenn.—The election March 15 to vote on \$150,000 of Washington county pike bonds was defeated.

Kansas City, Mo.—Reports state that \$57,000 of the \$60,000 of 4½ per cent.

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Kaw Valley drainage bonds have been placed.

Kaufman, Texas.—Voted: \$6000 of 4½ per cent. water-main-extension bonds.

Kiowa, Okla.—Voted: \$31,000 of 6 per cent. water-works and electric-light bonds.

Knoxville, Tenn.—The Merchants' Loan & Trust Co. of Chicago was awarded the \$150,000 of high-school bonds at \$8370 premium, and the Harris Trust and Savings Bank of Chicago \$50,000 of viaduct bonds at \$2570 premium.

La Grange, Texas.—An election will probably be held in May, it is reported, to vote on \$17,500 of school-building bonds.

Lineville, Ala.—Voted: \$15,000 of 5 per cent. 20-year school bonds.

Lockhart, Texas.—Geo. W. Kyser, judge of Caldwell county, writes the MANUFACTURERS' RECORD confirming the report that an election will be held April 24 to vote on \$50,000 of road bonds of precinct No. 1.

Mangum, Okla.—April 17 an election will be held to vote on \$80,000 of school bonds.

Manning, S. C.—Reported that N. W. Harris & Co. of New York were awarded \$79,000 of Manning school district bonds.

Maysville, Ky.—The Bank of Maysville has purchased at a premium \$30,000 of 4 per cent. public-school bonds, and the State National Bank of Maysville, at par, \$5000 of 6 per cent. sidewalk bonds.

Meridian, Miss.—Bids will be received until 7.30 P. M. March 26 for \$30,000 of 4½ per cent. school funding bonds.

Mobile, Ala.—The City Bank & Trust Co. is reported to have purchased at \$350 premium \$320,000 of paving bonds.

Montague, Texas.—Reported that \$36,000 of 4 per cent. Montague county road and bridge bonds have been purchased at par by the State Board of Education.

Montgomery, Ala.—City Council has authorized the issuing of bonds voted last December.

Montgomery, Ala.—F. M. Kohn & Son and the Fourth National Bank have been awarded at \$8200 premium the \$140,000 of school improvement, \$25,000 water-works improvement, \$25,000 sanitary improvement and \$10,000 of municipal wharf and warehouse bonds.

Morristown, Tenn.—N. W. Harris & Co. of Chicago have purchased at \$1126.50 premium \$25,000 of water bonds.

Newport, Tenn.—B. W. Hooper, secretary Board of Commissioners of Cocke county, informs the MANUFACTURERS' RECORD that he will receive bids until 2 P. M. April 17 for \$200,000 of 5 per cent. 10-30-year road bonds.

Norfolk, Va.—The Westover Company has been authorized by the finance committee to sell \$17,000 of bonds for improvements to streets in the Sixth ward.

Nowata, Okla.—Bids will be received until 10 A. M. March 31 by H. G. Garnett, city clerk, for \$15,000 of water-works and \$30,000 of sewer 5 per cent. 20-year bonds.

North Birmingham, P. O. Birmingham, Ala.—Bids will be received until April 15 by T. H. Friel, Mayor, for \$4,900,000 of water-works and \$100,000 of electric-light 5 per cent. 30-year bonds.

Oceana, W. Va.—Wyoming county will vote March 30 on \$50,000 of 6 per cent. 5-30-year bonds.

Odessa, Texas.—Voted: \$15,000 of school district building bonds.

Parkersburg, W. Va.—Arrangements are reported being made to hold an election to vote on \$300,000 or \$400,000 of water-system bonds.

Perry, Fla.—John C. Calhoun, clerk of Taylor county, writes the MANUFACTURERS' RECORD that \$15,000 of street and \$15,000 of sewer 5 per cent. 30-year bonds were voted March 16, and that as soon as proper arrangements can be made they will be advertised and sold.

Pittsboro, N. C.—E. D. Edwards of Oklahoma City has purchased at a premium \$25,000 of 4½ per cent. Chatham county bonds.

Pittsburg, Texas.—The election to vote on \$8000 of 5 per cent. 20-40-year school district building bonds will be held April 6.

Plainview, Texas.—Approved and registered: \$12,000 of 5 per cent. 15-40-year sewer bonds.

Plainview, Texas.—Approved: \$15,000 of jail and \$60,000 of 5 per cent. 10-40-year courthouse bonds of Hale county.

Raleigh, N. C.—The Legislature has authorized the State to issue \$3,430,000 of 4 per cent. 40-year refunding bonds.

Red Bay, Ala.—S. A. Kean & Co. of Chicago are reported awarded \$5000 of 5 per cent. 15-year school bonds.

Richmond, Mo.—Voted: \$25,000 of Ray county poorhouse bonds.

Rockville, Md.—Bids will be received by H. G. Hilton, county clerk, until noon March 30 for \$20,000 of 4 per cent. Montgomery county road-improvement bonds.

Rockwood, Tenn.—March 23 an election will be held to vote on \$15,000 of school-building and \$20,000 of public improvement bonds.

Samson, Ala.—Reported that \$20,000 of water and light bonds have been purchased by J. B. McCrary & Co. of Atlanta.

Schriever, La.—The Upper Terrebonne Drainage District Commission has sold \$12,000 of 5 per cent. bonds to K. J. Braud, cashier of the Bank of Lafourche.

South Jacksonville, Fla.—March 29 election will be held to vote on \$50,000 of water and sewerage bonds.

St. Joseph, Mo.—Bids will be received until April 20 by George M. Allison, treasurer of Buchanan county, for \$100,000 of 4 per cent. 10-year jail bonds.

St. Petersburg, Fla.—Bids will be received until 8 P. M. April 1 by W. F. Devine, city clerk, for \$10,000 of 5 per cent. refunding bonds.

Tampa, Fla.—An ordinance is to be introduced in the City Council providing for an election to vote on \$500,000 of municipal bonds.

Tarboro, N. C.—The MANUFACTURERS' RECORD is informed that bids will be received until 8 P. M. April 12 by John A. Weddell, city clerk, for \$5000 of 5 per cent. 6-10-year bonds.

University City, P. O. St. Louis, Mo.—Ordinances are reported passed authorizing \$70,000 of City Hall, \$35,000 of school, \$20,000 of electric-light and \$30,000 of bridge bonds.

Uvalde, Texas.—Mat Burney, Mayor, writes the MANUFACTURERS' RECORD that the city will in the near future issue \$50,000 of 40-year bonds for sewerage and other public works.

Velasco, Texas.—The \$50,000 of drainage bonds recently approved are reported sold.

Vernon, Texas.—Approved: \$15,000 of water-works, \$10,000 of school-building, \$10,000 of sewer and \$5000 of City Hall 4 per cent. 3-25-year bonds.

Welch, W. Va.—Seasongood & Mayer of Cincinnati have purchased at \$2750 premium \$50,000 of 5 per cent. 10-20-year McDowell county courthouse bonds.

Wynnewood, Okla.—Voted: \$15,000 school district building bonds.

At Clearwater, Fla., bids will be received until March 31 for \$40,000 of 5 per cent. water and sewer bonds. *Further particulars will be found in the advertising columns.*

At Durham, N. C., bids will be received until 2 P. M. April 19 for \$150,000 of 4½ per cent. 12-year Durham county funding bonds. *Further particulars will be found in the advertising columns.*

At Tarboro, N. C., bids will be received until 8 P. M. April 12 for \$5000 of 5 per

cent. 6-10-year bonds. *Further particulars will be found in the advertising columns.*

#### Financial Notes.

Nashville, Tenn., is reported to have canceled \$45,000 of settlement bonds.

Muskogee, Okla., is reported to have canceled \$17,300 of street-paving bonds.

The Louisiana Bankers' Association will meet at New Orleans May 13 and 14. The meeting of the Mississippi Bankers' Association will be held at Columbus May 11 and 12.

It is reported that on April 1 Florence, Ala., will cancel \$25,000 of courthouse and jail bonds.

The Dixie Trust & Security Co. of Cordele, Ga., will, it is stated, apply for a State charter.

The annual convention of the Florida Bankers' Association will be held at Live Oak April 23 and 24.

The First National Bank of Pensacola, Fla., is reported to have increased its capital from \$300,000 to \$500,000.

Reported that the Citizens' National Bank at Brownwood, Texas, has secured control of the American Bank & Trust Co.

Reported that the First National Bank of Fort Gibson, Okla., will be converted into a State institution with Clyde Kagey as cashier.

F. J. Lisman & Co., 30 Broad street, New York, are in the market for paying bonds of Southern municipalities having over 5000 population.

The Alabama Bankers' Association will hold its annual convention at Mobile May 11 and 12, instead of the 14th and 15th, as previously reported.

Reported that the American National Bank and the Farmers' National Bank of Winchester, Tenn., have consolidated under the title of the latter institution. Dick Taylor is cashier.

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## ALPHABETICAL INDEX OF ADVERTISERS.

FOR "CLASSIFIED OPPORTUNITIES" See Pages 72 and 73

Ads. marked \* appear every other week. Ads. marked † appear in first issue of the month. Ads. marked ‡ not in this issue

<b>A</b> Abbott & Co., F. Co. 87 Abendroth & Root Mfg. Co. 106 Abrasive Material Co. 100 Albany Fdry. & Mch. Works. 100 Albany Steam Trap Co. 100 Alberger Condenser Co. 100 Alberger Pump Co. 100 Allen, J. W. 73 Alpha Photo-Engraving Co. 39 Alpha Portland Cement Co. 22 Alpha Slat Co., The 22 Alsing Engineering Co., J. R. 98 Aluminum Co. of America 100 American Air Compress. Wks. 89 American Audit Co., The 89 American Blower Co. 89 American Bolting Cloth Co. 39 American Bridge Company of New York 39 American Cast Iron Pipe Co. 106 American Cement Co. 22 American Cotton Oil Co. 109 American Engine Co. 109 American Forge & Switch Co. 81 American Hoist & Derrick Co. 95 American Investment Association 109 American Iron & Steel Mfg. Co. 99 American Laundry Machinery Mfg. Co. 102 American Locomotive Co. 87 American Luxfer Prism Co. 34 American Machine Co. 17 American Mch. & Mfg. Co. 106 American Mfg. Co. 106 American Pipe Mfg. Co. 106 American Process Co. 22 American Pulley Co., The 14 American Pulverizer Co. 98 American Railway Supply Co. 71 American Rolling Mill Co. 106 American Safety Lamp, Mine & Supply Co. 3 Amer. Saw Mill Mch. Co. 107 American School of Correspondence 107 American Sheet & Tin Plate Co. 106 American Spiral Pipe Works 106 American Steel & Wire Co. 27 American Stoker Co. 6 American Stone Co. 20 American Supply Co. of Iron 106 Idence, R. L. 106 American Valve & Meter Co. 103 American Water Softener Co. 103 American Well Works 103 Ames & Co. 103 Anderson, South Carolina 130 Anderson Machine & Foundry Co. 100 Andrews, Perry 103 Anschutz, H. F. & Switch Co. 103 Aquabar Co., The 103 Armistead Mfg. Co. 103 Arnold Co., The 103 Arundel Sand & Gravel Co. 20 Aschbach, H. F. & Switch Co. 103 Asheville Real Estate Co. 76 Associated Engineering Co. 18 Atlanta, Fla. & Atlantic R.R. 112 Atlanta Steel & Wire Co. 103 Atlanta Utility Works 103 Atlantic Equipment Co. 80 Atlantic Hydraulic Mch. Co. 105 Atlas Machine Co. 105 Atlas Portland Cement Co. 23 Audit Co. of New York, The 69 Austin Mfg. Co. 105 Austin-Western Co., Ltd., The 84 Avery Co. 105	Caldwell Co., Inc., W. E. 16, 102 Callahan Co., The W. P. 102 Cameron Septic Tank Co. 102 Cameron Stm. Pump Wks. A.S. 98 Campbell, Thos. J. 78 Campbell, Thos. J. 78 Campton McClellan Co., The 18 Canton Art Metal Co., The 18 Canton Bridge Co. 103 Canton Electric Co. 103 Carborandum Co. 103 Cardwell Machine Co. 109 Carlin's Sons Co., Thomas 95 Carnegie Steel Co. 29 Carney, George 29 Carolina Ice Mach. Co., The 10 Carolina Portland Cement Co. 22 Carolina Iron Works 22 Carpenter Tap & Die Co., J.M. 12 Carter Electric Co., W. E. 113 Carter, J. W. 73 Carthage Superior Limestone Co. 20 Carver Cotton Gin Co. 101 Carver, Frank 101 Cary Spring Hantley 18 Casey, Joseph Hantley 18 Castelli & Trefny 68 Castner, Curran & Bullitt 85 Castner, Foundry 106 Central Foundry 106 Central Hotel 112 Central Metal & Supply Co. 4 Central of Georgia Railway 111 Central Steel Co. 106 Charlotte, Plastic Co. 38 Chase Fdry. & Mfg. Co. 82 Chase Turbine Mfg. Co. 2 Chattanooga Boiler & Tank Co. 33 Chattanooga Iron & Wire Wks. 33 Chattanooga Paint Co. 23 Chesapeake Belting Co. 10 Chesapeake Iron Works 32 Chesapeake Steamship Co. 89 Ches. & Ohio Coal & Coke Co. 85 Chicago & North Western R.R. 106 Chicago Concrete Mach. Co. 24 Chicago Coal Co. 79 Chicago House Wrecking Co. 79 Chicago Pneumatic Tool Co. 79 Cincinnati Equip. Co. 82, 84 Cincinnati Frog & Switch Co. 80 Citizens' Loan & Trust Co. 67 Clarksburg Board of Trade 110 Clark Co., H. W. 101 Clark Co., The Geo. F. 101 Classified Opportunities 72, 73 Clayton Air Compressor Wks. 2 Cleveland Belt & Mch. Co. 79 Cleveland Iron Works Co. 97 Clinton, M. Co. 107 Clinchfield Coal Corporation 2 Cline-Surface Co. 2 Clyde Iron Works 25 Cold Co., E. J. 77 Coldwell, W. C. 102 Cole Mfg. Co., R. D. 102 Columbia Incan. L'imp Co., The 102 The Columbian Concrete Steel Bar Co. 40 Consolidated Coal Co. 107 Continental Car & Equip. Co. 81 Continental Gin Co. 109 Continental Port. Cement Co. 22 Contractors' Plant Mfg. Co. 106 Conway, W. 106 Cook's Sons, Adam 12 Cook Well Co. 104 Cooper Co., C. & G. 8 Copeland-Ingle State Brick Co. 20 Cordes, W. H. 106 Corrugated Bar Co. 26 Cortright Metal Roofing Co. 76 Cosby, Clarence 76 Cotheran & Cotheran 18 Cotton States Belt & Sup. Co. 16 Cowing, John P. 106 Crawford, O. W. 106 Creamery Package Mfg. Co. 10 Cresson Co., George Y. 98 Crosby & Co. 106 Crosby-Kries & Co. 19 Crosby Steam Gauge & Valve Co. 5 Crucible Steel Casting Co. 5 Cumberland Steel Co. 40 Curry, W. H. 106 Custer Manufacturing Co. 112 Cypress Lumber Co. 102	<b>D</b> Dake Engine Co. 19 Dallas, Park 19 Dalton, J. 19 The Darrin Co. 37 Dart Mfg. Co., E. M. 71 Davenport Locomotive Works 87 Darrow & Sons, W. O. 61 Davis, Frank 61 Davis Drilling & Prospecting Co. 106 Davis Foundry & Mach. Wks. 105 Davis, Frank H. 105 Davis & Son, G. M. 105 Day in Chair Co. 75 Dayton Globe Iron Wks. Co., The 105 Dean Bros. Steam Pump Wks. 105 Decatur Cor. & Roofing Co., Inc. 34 DeLaval Steam Turbine Co. 8 Delaware Fidelity Trust Co. 67 Delaware Trust Co. 67 Deming Co., The 105 Department of Interior 72 Des Moines Bridge & Iron Co. 102 Desmond-Stephan Manfg. Co. 4 Detroit Granite Co. 6 Detroit Leather Specialty Co. 6 Detroit Lubricator Co. 12 Devine Co., J. P. 40 Diamond Rubber Co., The 13 Dickson, J. 105 Dimmick Pipe Co. 105 Direct Separator Co. 105 Dixie Electric Magnet Co. 109 Dixie Portland Cement Co. 21 Dixie Steel & Sup. Co. 116 Dixon Crucible Co., Joseph 116 Dobbie Frg. & Machine Co. 97 Dodge Mfg. Co. 97 Dodge & Lay 18 Donahoe & Co., J. F. 38 Donigan & Barrett 18 Doubleday-Hill Electric Co. 5 Dow Wire & Iron Works Co. 33 Draper Co. 109 Druid Oak Belting Co., Inc. 15 Dufur, Baggot & Co. 33 Dufur & Co. 33 Dunning, W. D. 71	<b>E</b> Eagle Wagon Works 26 East Bacon Cons. Slat Co. 26 Ebert, Jacob 26 Eco Magnet Clock Co. 71 Economy Electric Co., The 26 Edison Portland Cement Co. 22 Edwards Manufacturing Co. 22 Egleston, Howard 22 Electric Cable Co. 113 Elliott & Co., Edward 64 Emerson Steam Pump Co. 104 Ephraim Fdry. & Mch. Wks. 106 Erie Pump & Engine Co. 26 Eichen Bros. 26 Eureka Fire Hose Mfg. Co. 19 Eureka Machine Co. 24 Eureka Supply Co. 24 Evans Marble Co. 18 Expanded Metal & Corrugated Bar Co. 26 Fairbrink Metal Co. 16 Fairbanks Steam Shovel Co. 16 Fairmont Coal Co. 2 Farley, John D. A. B. 144 Farris Bridge Co. 32 Fenditz & Co., Albert 76 Fernholtz Brick Mfg. Co. 101 Ferracute Mch. Co. 106 Ferry Mfg. Co., The 115 First Nat'l Bank of Cleveland 67 First Nat'l Bank of Kansas City 67 First Nat'l Bank of Richmond 67 Fisher Belting Co. 67 Fisk & Robinson 68 Fleet McGilley Co. 23 Flexible Compound Co. 89 Floss, Wm. C. 92 Foss Gas Engine Co., The 12 Foss Mfg. Co., The 109 Fort Wayne Electric Works 114 Fort Wayne & Wabash Valley Traction Co. 78 Foster Incandescent Lamp Co. 78 Fox & Co., M. Ewing 74 Fox, C. E. 74 Franks, J. E. 82 Frazer, W. A. 74 Freeman & Sons Mfg. Co., S. 5 Freese & Co., E. 101 French, J. M. Mch. Co., The 106 Frick Co. 18 Froehling & Robertson 18	<b>G</b> Gager Lime & Mfg. Co., The 20 Galena-Signal Oil Co. 12 Galena Iron Works 107 Galt & Son, John 36 Gambill & Davis 77 Gander Belting Co. 12 Gardner & Howe 104 Gardner Governor Co. 104 Gas Power Co. 19 General Building Supply Co. 20 General Electric Co. 106 General Electric Co. 106 General Fire Extinguisher Co. 103 Genuine Bangor Slat Co. 35 George, W. H. 106 Georgia Corrosion Co. 101 Georgia Locomotive Co. 80 Gibbs Machinery Co. 14 Gibson, E. 102 Gilmorgan Pipe & Fdry. Co. 106 Glenn, Wm. S. 68 Golden's Foundry & Mach. Co. 14 Golden's Foundry & Mach. Co. 103 Granite Real Estate & Trust Co. 106 Graton & Knight Mfg. Co. 15 Graver Truck Works, Wm. 102 Gray, J. 102 Green Fuel Economiser Co. 106 Greensboro Boiler & Mch. Co. 78 Greensboro Supply Co. 79 Greenwood Co., L. & E. 78 Grieco-Spencer Co., The 78 Grunwald, The 110 Guenzel & Ferlet Co. 71 Gulfport Corrosion Co. 101 Gulf Refining Co. 12	<b>H</b> Hales Mfg. Co., Inc., Geo. 97 Hall & Hall 115 Hammond-Byrd Co., The 85 Hammett, R. 106 Harbison-Walker Refractories Co. 40 Harley, James A. 106 Harmon Electric Co., C. G. 106 Harris Air Pump Co. 106 Harrisburg Fdry. & Mch. Wks. 8 Hartfelder Garbutt Co. 13 Hartman, J. 106 Hartman-Garbutt Co. 13 Haskell-Dawes Machine Co. 26 Hattson, T. Oakley 106 Hayward Co., The 106 Hazen, J. & Anderson 106 A. Werner 106 Hazen Electric Co. 115 Heard, E. B. 75 Heaton, E. J. 75 Heise Stone Co., T. A. 69 Hensch & Dromgold Co., The 107 Hendrick Mfg. Co. 107 Heppes Co., The 26 Herting, E. H. 106 Hervey Hotel Co. 112 Heyworth, James O. 81 Hicks Locomotive & Car Wks. 81 Hinch Canal Co. 76 Hirsch & Sons Iron & Nail Co. 82 Hirsch Rolling Mill Co. 82 Hirsch-Rolling Equipment & Machinery Co. 82 Hodgman, Geo. W. 112 Hoffman & Co., R. O. 81 Holmboe Co., The 18 Holt, R. L. 74 Holtz & Co. 106 Hooker Steam Pump Co. 78 Hope Mills Mfg. Co. 78 Hotel Belvedere 112 Hotel Pater 112 Houchin-Alken Co. 87 Houston, Stanwood & Gamble Co. 4 Howe Scale Co. 116 Huber, J. K. 38 Huber, J. K. 38 Hudson Engineering Co. 105 Hughes Specialty Well Drill Co. 10 Humphreys, O. K. 19 Huntley & Terry 19 Hutter Bros. Saw Mfg. Co. 80 Hyde Bros. & Co. 80 Hydraulic Press Brick Co. 20 Hyndman Roofing Co. 36	<b>I</b> Ideal Electric Co. 113 Illinois Central Railroad 98, 113 Illinois Supply Co. 113 Imperial Road Co. 113 Independent Pneumatic Tool Co. 2 India Alkali Works 2 Indian Refining Co. 2 Indiana Machine & Supply Co. 108 Indianapolis Switch & Frow Co. 81 Industrial Lumber Co. 81 Ingersoll Rad Co. 2 Inland Steel Co. 2 Insley Mfg. Co. 97 International Car. Co., The 83 International Corrosion & Construction Co. 2 International Filter Co. 2 International Lumber Co. 102 International Trust Co. of Md. 67 Interstate Trust & Bank's Co. 68 Jones & Laughlin Steel Co. 2 Iron Works, The 78 Isthmian Canal Commission 73, 78
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